

**Groundwater Monitoring Summary Report  
September 2002 (Third Quarter)  
American Chemical Service, Inc. National Priorities List Site  
Griffith, Indiana**

PREPARED FOR:

ACS RD/RA EXECUTIVE COMMITTEE

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## SECTION 1.0 – EXECUTIVE SUMMARY

MWH Americas (MWH) has prepared this Groundwater Monitoring Summary Report to present the groundwater monitoring results from the September 2002 sampling event at the American Chemical Service, Inc. (ACS) National Priorities List (NPL) Site in Griffith, Indiana. These activities were performed in accordance with the revised long-term groundwater monitoring plan (LTGMP) and the November 2001 United States Environmental Protection Agency (U.S. EPA)-approved Quality Assurance Project Plan (QAPP). The U.S. EPA and Indiana Department of Environmental Management (IDEM) approved the revised LTGMP in a letter dated June 26, 2002.

Water level measurements and groundwater samples were collected from several wells in the monitoring network during this sampling event. Water level measurements were collected at 72 monitoring wells, piezometers, and staff gauges. Groundwater samples were collected at 12 upper aquifer wells and 16 lower aquifer wells in the monitoring network. Additionally, the annual sampling of five residential wells was conducted during September 2002. The monitoring well samples were analyzed for indicator volatile organic compounds (VOCs) and the residential well samples were analyzed for low-concentration VOCs, semi-volatile organic compounds (SVOCs), pesticides, poly-chlorinated biphenyls (PCBs), metals, and cyanide.

September 2002 groundwater elevations in the upper and lower aquifers were generally lower than those measured in March 2002, however hydraulic gradients remained consistent with those recorded during previous sampling rounds.

Groundwater samples collected from the 12 upper aquifer monitoring wells indicate that groundwater plumes to the north and south of the ACS Site are not expanding, and that concentrations within the plume are decreasing. There were no exceedances of maximum baseline concentrations in any upper aquifer monitoring well sampled during September 2002.

Groundwater results from samples collected at 16 lower aquifer wells continue to show fluctuating trends. Results at well MW09R continue to decrease, and benzene concentrations at downgradient well MW53 decreased after several rounds of increasing trends. Concentrations of benzene and chloroethane at MW10C decreased slightly, however benzene remained above the well's maximum baseline concentration. Concentrations of benzene and chloroethane at MW56 remained generally consistent with previous levels. Additionally, concentrations of chloroethane at MW29, a well nested with MW09R, have increased slowly over the past two years and finally exceeded the maximum baseline concentration for this well in September 2002.

In response to the increasing concentration trends at MW29 and MW53, MWH proposes to continue monitoring the concentrations in these wells. In response to the continuing exceedances of maximum baseline concentrations at MW10C, MWH is operating a pumping system at MW10C and MW56, and will continue to monitor groundwater concentrations at these wells.

Results from groundwater samples from residential wells near the ACS Site continue to show that no Site related compounds have impacted these wells, as all detected analytes were below their respective EPA maximum contaminant level (MCL).

## SECTION 2.0 – SEPTEMBER 2002 DATA COLLECTION ACTIVITIES

The following activities were conducted at the Site during September 2002:

- Water level measurements at 72 monitoring points
- Groundwater samples collected at 12 upper aquifer and 16 lower aquifer monitoring wells
- Annual residential well sampling at five residences

### 2.1 WATER LEVEL MEASUREMENTS

Water level measurements were collected at 72 upper and lower aquifer wells, piezometers, and surface water staff gauges on September 9, 2002. **Table 1** contains the water level measurements, map coordinates (reference points), top of well casing elevations, and calculated groundwater elevations for the measurement points.

### 2.2 GROUNDWATER SAMPLING

Groundwater sampling activities were conducted on September 10, 11, and 12, 2002. Due to overnight carrier delays, the samples collected on September 12 reached the laboratory outside of the temperature range specified in the QAPP (two to six degrees Celsius). This invalidated the samples collected at four monitoring wells and four residential wells. The four residential wells were resampled on September 17, 2002, and the four

monitoring wells were resampled on September 23, 2002. Because of a detection of an SVOC compound above the MCL at residential well PW-B, this well was resampled for SVOCs on October 25, 2002, to confirm the original detection. The U.S. EPA was notified of these corrective actions via email and telephone communications.

Each monitoring well and residential well was sampled using low-flow methods in accordance with the Groundwater Sampling Standard Operating Procedure (SOP) in the revised LTGMP. Field parameters (pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity) were measured during well purging, and the values recorded upon stabilization are presented in **Table 2**.

The groundwater samples were sent overnight under chain-of-custody to CompuChem Laboratory, Cary, North Carolina, where they were analyzed for the parameters summarized in **Table 3**. The table lists the upper and lower aquifer monitoring wells and residential wells in the monitoring well network and the parameters analyzed at each well during the September 2002 event. In accordance with the revised LTGMP, the September 2002 analytical results were compared to the 1997 maximum baseline concentrations. The comparison tables are included in **Appendix A**.

## SECTION 3.0 – SEPTEMBER 2002 GROUNDWATER DATA EVALUATION

### 3.1 GROUNDWATER FLOW SYSTEM DATA

The groundwater elevations listed in [Table 1](#) were used to develop water table and potentiometric surface maps for the upper ([Figure 1](#)) and lower aquifers ([Figure 2](#)).

The groundwater flow pattern in the upper aquifer was consistent with previous monitoring events. Groundwater flows from east to west, and is diverted to the north and south by the barrier wall. The gradient northwest of the site is relatively flat due to the affects of the PGCS trench, barrier wall, and discharge points from the groundwater treatment plant. The water level in the wetland pond, which was constructed in 2001 during the PCB-impacted sediment removal, was one to two feet above the water levels in nearby wells. Thus the wetland pond appears to create a local groundwater mound west of the Site. Groundwater to the south of the site flows to the south and southeast.

The groundwater flow pattern in the lower aquifer is northward at a relatively low hydraulic gradient. This is consistent with historical groundwater data. The hydraulic gradient calculated between wells MW50 and MW52 was 0.00042 feet per feet (ft/ft). The average hydraulic gradient in the lower aquifer since 1995 is 0.00041 ft/ft.

### 3.2 MONITORING WELL ANALYTICAL DATA

During the September 2002 sampling round, samples from all 12 wells in the upper aquifer and all 16 wells in the lower aquifer were analyzed for indicator VOCs. The analytical results from the upper and lower aquifer monitoring wells were compared to the 1997 maximum baseline concentrations and to data from previous sampling rounds.

#### 3.2.1 Upper Aquifer Results

[Table 4](#) summarizes the analytical results for the 12 upper aquifer wells sampled during the September 2002 event. [Figure 3](#) shows the well locations and analytical detections on a map of the ACS Site. Concentration vs. Time plots for the upper aquifer monitoring wells are presented in [Appendix B](#). The validation narrative and laboratory analytical reports for samples from the upper aquifer are provided in [Appendix C](#).

Benzene and chloroethane impacts have been observed outside of the barrier wall in two areas of the upper aquifer. North of the site, these detections have consistently occurred at wells MW48 and MW49. South of the site, benzene and chloroethane detections have extended from MW06 to MW19 and MW45. The

groundwater monitoring program in the upper aquifer has focused on monitoring concentrations upgradient, within, and downgradient of these impacted areas.

### VOC Results

- Upgradient wells: Benzene and chloroethane were not detected at any upgradient monitoring wells. Benzene was detected at trace levels at MW11; however, benzene was also detected in the associated laboratory blank, and thus it is not considered representative of groundwater at MW11. Tetrachloroethylene was detected at trace amounts at well MW17.
- Interior wells: Benzene and chloroethane were detected at all interior wells except MW06. Concentrations of benzene at MW19 (5 µg/l) and MW45 (8 µg/l) were near the EPA MCL of 5 µg/l. Concentrations of benzene and chloroethane at wells MW48 and MW49 remained elevated (1,300 µg/l and 32 µg/l, 570 µg/l and 60 µg/l, respectively), however, there were no exceedances of maximum baseline concentrations for either compound.
- Downgradient wells: Benzene and chloroethane were not detected at any downgradient monitoring well except for MW15. Concentrations of benzene (5 µg/l) and chloroethane (2 µg/l) at MW15 were at or below the reporting limit for these compounds.

### 3.2.2 Lower Aquifer Results

**Table 5** summarizes the analytical results for the 16 lower aquifer monitoring wells sampled during the September 2002 event. **Figure 4** shows the well locations and analytical detections on a map of the ACS Site. Concentration vs. Time plots for the lower aquifer monitoring wells are presented in **Appendix B**. Validation narratives and laboratory analytical reports for samples from the lower aquifer are provided in **Appendix C**.

In the past, benzene and chloroethane have been detected at lower aquifer monitoring wells MW09, ATMW4D, and MW10C. Faulty well construction at MW09 and ATMW4D likely allowed benzene and chloroethane to migrate locally into the lower aquifer. These wells have been properly abandoned and replaced by MW09R and MW56, respectfully. Thus, the monitoring plan in the lower aquifer has been designed to measure groundwater concentrations upgradient, within, and downgradient of the area defined by wells MW09, ATMW4D, and MW10C.

### VOC Results

- Upgradient well: Benzene and chloroethane were not detected at monitoring well MW28.
- Interior wells: Benzene and chloroethane were detected at wells MW09R, MW10C, MW29 and MW56. Concentrations of benzene at MW10C and

chloroethane at MW29 exceeded maximum baseline concentrations. Vinyl chloride was also detected at MW10C (0.5 µg/l) below the EPA MCL of 2 µg/l.

- Downgradient wells: Benzene was detected at two downgradient monitoring wells, but one detection (MW54R) was at estimated concentration below the reporting limit. Benzene was detected at 5 µg/l at well MW53, a well screened in the lower part of the lower aquifer (76 to 86 feet bgs).

### 3.2.3 Discussion

The Site source areas are currently contained within the barrier wall, which is preventing migration of contaminants to adjacent areas in the upper aquifer. Therefore the groundwater monitoring program is structured to monitor groundwater not contained within the barrier wall.

#### Upper Aquifer

North of the Site, results from interior wells MW48 and MW49 continue to show generally decreasing concentration trends since 1997. Years of monitoring data show that concentrations fluctuate on a seasonal pattern, with concentrations being higher during the summer and fall months and lower when sampled in winter and spring. Although the September 2002 benzene concentration at MW48 (1,300 µg/l) increased slightly since March 2002 (1,200 µg/l), it has decreased

significantly since September 2000 (4,100 µg/l) and September 2001 (2,800 µg/l).

South of the Site, concentrations of benzene and chloroethane also continue to show decreasing trends. While benzene and chloroethane concentrations at interior well MW06 are typically lower during the summer and fall months, they were below detection limits for the first time in over five years. Benzene concentrations in March 2002 also showed a significant decrease compared to previous spring sampling events. This decrease may be related to the application of Oxygen Release Compound (ORC) upgradient of MW06 in April 2001. (Phase 3 of the ORC pilot study is being conducted to evaluate concentration trends at monitoring wells in this area).

Concentrations at interior wells MW19 and MW45, located 500 and 1000 feet downgradient of MW06, respectively, have also shown decreasing concentrations trends over the last several sampling events. Benzene concentrations at these wells increased slightly but remained near the MCL (5 µg/l) during September 2002.

Although benzene and chloroethane have not previously been detected at upgradient well MW17, tetrachloroethene has been detected at similar concentrations during the last three sampling events. The tetrachloroethene concentration observed in September 2002 decreased from its concentration in March 2002.

Prior to installation of the barrier wall this well was downgradient from the Kapica-Pazmey area. Current groundwater elevation data indicate that well MW17 is upgradient of the site. This well replaced upgradient well MW18, which became obstructed and was abandoned in March 2002. MWH will continue to observe the concentrations of tetrachloroethene at MW17.

Trace amounts of benzene and chloroethane have occasionally been detected at downgradient well MW15. Although current results show a slight increase from past sampling events, the concentrations are within historical limits and do not exceed their maximum baseline concentrations. Additionally, it should be noted that this well is more downgradient of the Town of Griffith Landfill than it is of the ACS Site.

Data from upper aquifer monitoring wells indicate that contamination has not spread beyond historical limits. Perimeter monitoring wells have been generally free of benzene and chloroethane detections and concentrations within the plume have been decreasing.

### **Lower Aquifer**

In the lower aquifer, the groundwater results continue to show variable results. Prior to being replaced, concentrations of benzene and chloroethane at monitoring well MW09 were as high as 290 and 2,900 µg/l, respectively. Since MW09R replaced MW09, the benzene and chloroethane concentrations have

decreased to the current concentrations of 9 and 130 µg/l, respectively, the lowest since MW09R was installed.

Chloroethane concentrations at well MW29 have gradually increased over the last several sampling events and exceeded maximum baseline concentrations during September 2002. Well MW29 is nested with wells MW09R and MW34. MW29 is screened in the middle portion of the lower aquifer, while MW09R and MW34 are screened in the upper and lower part of the lower aquifer, respectively. Historical groundwater elevations indicate that there is an upward hydraulic gradient in this area. Therefore it is unlikely that the detections of chloroethane at MW29 are due to a local downward migration of contaminants, but rather a possible downward concentration gradient (diffusion).

At MW10C, benzene and chloroethane concentrations decreased during September 2002. Benzene and chloroethane concentrations at well MW56 were essentially unchanged between March 2002 and September 2002.

At downgradient well MW53, benzene concentrations have increased gradually from below detection limits in 1997 to 7 µg/l in March 2002, although concentrations decreased to 5 µg/l in September 2002. Well MW53 is nested with well MW52. MW52 is screened in the upper part of the lower aquifer and MW53 is screened at the lower part. Historical groundwater elevations indicate a

very small downward gradient at this location. It is unclear if the benzene concentrations at MW53 are hydraulically connected to the detections at MW10C or MW09R, which are screened in the upper part of the lower aquifer.

### **Corrective Actions**

According to the LTGMP, MWH is to propose corrective actions for analytical results that exceed maximum baseline concentrations or that demonstrate increasing trends. The following lists the exceedances (underlined) and the corrective action taken:

- Baseline exceedance and increasing chloroethane concentrations at well MW29: MWH will continue monitoring the chloroethane concentrations at wells MW29 and adjacent nested well MW09R as described in the LTGMP.
- Historical baseline exceedances at MW10C and MW56: As described in the March 2002 Groundwater Summary Report (October 2002), MWH installed a purging system at MW10C and MW56. This purging system has been active since October 2002, and as of December 31, 2002, has pumped approximately 56,000 gallons of water. MWH will continue monitoring the concentrations at wells MW10C and MW56 as described in the LTGMP.

- Increasing benzene concentrations at MW53: While benzene concentrations have not exceeded baseline concentrations, MWH will continue monitoring the benzene concentrations at well MW53 as described in the LTGMP.

### **3.3 RESIDENTIAL WELL ANALYTICAL DATA**

The following five residential wells were sampled during the September 2002 groundwater sampling round:

<b>Well Identity</b>	<b>Street Address</b>
PW-Y	1002 Reder Rd.
PW-B	1009 Reder Rd.
PW-C	1029 Reder Rd.
PW-D	1033 Reder Rd.
PW-T	1043 Reder Rd.

Since residential well PW-A remained inoperable due to a house fire, MWH, with U.S. EPA approval, sampled residential well PW-T, the next residence along Reder Rd. The locations of the residential wells are shown on **Figure 5**. The samples were analyzed for low-concentration organics (VOCs, SVOCs, PCBs and pesticides) and inorganics (metals and cyanide).

Several VOCs were detected in samples collected from each of the residential wells, but most detections were below the reporting limit (typically 1 µg/l) and related to

blank contamination. Only chlorobenzene, detected at 0.03 µg/l at well PW-C, was not related to blank contamination. This concentration is below the MCL for chlorobenzene (100 µg/l), and has not been detected in any previous residential sampling event. The organic compound detections are summarized in **Table 6**.

The SVOC results at PW-B indicated a bis(2-ethylhexyl)phthalate concentration of 23 µg/l, which exceeded the MCL of 6 µg/l. This well was resampled in October 2002 in order to confirm the presence of this compound in the residential well, and the contaminant was not detected in the resampling results. This compound can occasionally appear as a laboratory artifact, and is likely the cause for the false detection in the initial sample. Thus, no SVOCs were detected in the residential well samples.

No PCBs or pesticides were detected in the residential well samples.

Several inorganic analytes were detected in the residential well samples. **Table 7** provides the detected inorganic results along with the related MCLs, laboratory method detection limits (MDLs), and practical quantitation limits (PQLs, or reporting limits). None of the inorganic detections exceeded the MCLs, and all detections were generally similar to concentrations detected during previous residential sampling events.

## SECTION 4.0 – CONCLUSIONS

The September 2002 water levels and groundwater samples were collected from wells at the ACS Site to meet the following objectives from the revised LTGMP:

1. Collect water level data to confirm that groundwater flow regimes in the upper and lower aquifers are consistent with historical flow patterns.

The groundwater flow regimes determined from September 2002 data are consistent with past conditions for both the upper and lower aquifers.

2. Collect water level data to confirm that the Barrier Wall Extraction System (BWES) and Perimeter Groundwater Containment System (PGCS) are affecting the upper aquifer hydraulic gradients as planned.

The data indicate the barrier wall is containing the groundwater enclosed within the wall. In general, groundwater flow from the east is diverted toward the north and south around the barrier wall. The groundwater diverted to the north is collected in the PGCS extraction trench. Groundwater diverted south flows along the barrier wall and continues to the south and southeast. These results are consistent with previous observations.

3. Collect and analyze groundwater samples from upgradient monitoring wells in the upper and lower aquifers to confirm background ground water quality.

There were no detections of benzene or chloroethane in samples from upgradient monitoring wells in both the upper and lower aquifer wells. Tetrachloroethene was detected in upper aquifer well MW17, and detections of this compound will be monitored in future sampling events.

4. Collect and analyze groundwater samples from upper and lower aquifer monitoring wells to provide indication of any changes in groundwater quality at downgradient boundaries.

In the upper aquifer, benzene and chloroethane were detected at downgradient monitoring well MW15. These detections were at or below the reporting limit, and do not represent an increasing trend.

In the lower aquifer, benzene was detected in two downgradient wells. At well MW53, the benzene concentration has decreased after gradually increasing during recent sampling events. The

benzene detection at MW54R was at an estimated concentration below the reporting limit.

Sample results from residential wells east of the Site continues to demonstrate that no Site-related contamination has impacted these wells.

**5. Collect and analyze groundwater samples from the interior of the areas of contaminated groundwater to document how concentrations change with time as the remediation progresses.**

Data from the upper aquifer sampling indicate that concentrations within contaminated areas outside the barrier wall continue to decrease. The concentrations of benzene and chloroethane at wells MW19, MW45, MW48, and MW49 have decreased over the last several years. While concentrations of benzene in MW06 have continued to fluctuate, concentrations during September 2002 were lower than in previous September sampling events. These decreasing trends in the upper aquifer are likely the combined result of the barrier wall, the PGCS, and the ORC treatments in these areas.

In the lower aquifer, concentrations of benzene and chloroethane in contaminated areas have been variable over the last several sampling events. Concentrations of benzene and chloroethane at MW09R have shown decreasing trends, while chloroethane concentrations at adjacent nested well

MW29 have been slowly increasing during recent events. Concentrations at well MW29 will continue to be monitored.

Benzene and chloroethane concentrations at MW10C and MW56 have remained relatively unchanged. To address the elevated concentrations at MW10C and MW56, MWH has installed a purging system at MW10C and MW56 to capture impacted groundwater and prevent its migration in the lower aquifer.

**Table 1**  
**Water Level Elevation Data - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

<b>Monitoring Point Designation</b>	<b>Reference Points</b>			<b>September 9, 2002</b>		<b>Notes</b>
	<b>East</b>	<b>North</b>	<b>TOC</b>	<b>Level</b>	<b>Elevation</b>	
<b>Upper Aquifer Monitoring Wells</b>						
MW6	5298	5520	655.28	24.26	631.02	
MW11	6377	7329	640.47	9.58	630.89	
MW12	6019	6352	642.74	11.13	631.61	
MW13	5050	7814	634.08	6.18	627.90	
MW14	4882	6995	638.56	11.32	627.24	
MW15	4721	5003	637.89	7.84	630.05	
MW17	5656	5677	647.10	15.95	631.15	
MW19	5231	4943	635.78	5.73	630.05	
MW37	5395	7976	636.78	8.46	628.32	
MW38	5903	8216	636.51	8.82	627.69	
MW39	6253	7947	637.77	8.33	629.44	
MW40	6349	6831	639.46	8.33	631.13	
MW41	6242	4517	632.74	DRY	DRY	Total depth 13.85 feet below TOIC
MW42	6264	3808	632.32	9.96	622.36	
MW43	5880	3719	633.56	10.42	623.14	
MW44	5390	4303	633.04	6.69	626.35	
MW45	5830	4388	635.35	7.74	627.61	
MW46	4526	7424	633.32	5.23	628.09	
MW47	5958	5084	640.54	9.52	631.02	
MW48	5669	7814	636.36	7.73	628.63	
MW49	5551	7650	637.00	8.23	628.77	
M4S	4953	6537	633.42	CNM	CNM	Griffith Landfill well had a new lock; did not have key to open

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOC = top of casing

CNM = could not measure (reason given under "Notes" column)

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**Water Level Elevation Data - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

<b>Monitoring Point Designation</b>	<b>Reference Points</b>			<b>September 9, 2002</b>		<b>Notes</b>
	<b>East</b>	<b>North</b>	<b>TOC</b>	<b>Level</b>	<b>Elevation</b>	
<b>Staff Gauges &amp; Piezometers</b>						
P13	4878	5735	651.20	19.61	631.59	
P17	4584	6006	654.64	22.78	631.86	
P23	4689	7018	636.18	8.38	627.80	
P25	5131	7510	635.01	7.74	627.27	
P26	4764	7309	634.23	5.34	628.89	
P27	4904	7020	639.70	11.83	627.87	
P28	5883	7486	644.53	14.32	630.21	
P31	5480	7159	641.03	10.03	631.00	
P32	5746	7026	642.32	10.44	631.88	
P36	5410	6851	645.89	14.86	631.03	
P40	5931	7241	638.77	7.68	631.09	
P41	5663	7377	637.23	6.71	630.52	
P49	5145	6949	638.98	9.38	629.60	
SG8R	5409	5252	634.70	DRY	DRY	
SG5	5464	7713	633.36	DRY	DRY	
SG13			631.53	4.48	630.01	TOC is the 6.0' mark on staff gauge
SG14			635.44	DRY	DRY	TOC is the 6.0' mark on staff gauge
<b>PGCS Piezometer Sets</b>						
P81	5577	7581	636.19	7.36	628.83	
P82	5577	7572	635.77	6.94	628.83	
P83	5577	7561.6	635.95	7.16	628.79	
P84	5322	7603	634.35	CNM	CNM	Could not access due to wasp nest
P85	5326	7594	634.08	6.67	627.41	
P86	5329	7585	634.41	6.70	627.71	
P87	5121	7466	633.88	6.74	627.14	
P88	5130	7460	633.90	CNM	CNM	Could not access due to wasp nest
P89	5137	7454	634.02	6.71	627.31	
P90	4881	7152	632.59	6.33	626.26	
P91	4889	7145	632.97	6.72	626.25	
P92	4896	7138.1	633.63	6.93	626.70	

**Notes:**

All depth measurements and elevations are in units of feet.  
Elevation is in feet above mean sea level.

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**Water Level Elevation Data - September 2002**  
**American Chemical Service NPL Site**  
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	<b>East</b>	<b>North</b>	<b>TOC</b>	<b>Level</b>	<b>Elevation</b>	
<b>BWES Water Level and Piezometer Pairs</b>						
P93	5136	7067	638.79	CNM	CNM	Does not exist - Scheduled to be re-installed in 2003
P94	5146	7061	638.98	CNM	CNM	Does not exist - Scheduled to be re-installed in 2003
P95	5146	6532	638.58	10.41	628.17	
P96	5156	6537	638.39	17.30	621.09	
P105	5885	6678	638.86	7.26	631.60	
P106	5871	6685	638.10	8.01	630.09	
P107	5766	7339	637.42	7.28	630.14	
P108	5757	7324	638.13	6.42	631.71	
P109	5740	6387	644.30	12.50	631.80	
P110	5705	6382	647.68	20.48	627.20	
P111	5551	5950	650.03	18.49	631.54	
P112	5525	5960	653.36	27.51	625.85	
P113	5309	5693	657.53	30.27	627.26	
ORCPZ102	5331	5612	652.47	21.41	631.06	
P114	5035	5729	653.69	25.48	628.21	
P115	4970	5708	652.50	25.16	627.34	
P116	5031	6087	646.26	18.69	627.57	
P117	5014	6087	643.93	13.70	630.23	
P118	5402	6539	645.52	19.61	625.91	

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

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**Water Level Elevation Data - September 2002**  
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**Griffith, Indiana**

<b>Monitoring Point Designation</b>	<b>Reference Points</b>			<b>September 9, 2002</b>		<b>Notes</b>
	<b>East</b>	<b>North</b>	<b>TOC</b>	<b>Level</b>	<b>Elevation</b>	
<b>Lower Aquifer Wells</b>						
MW7	6113	6732	641.46	22.38	619.08	
MW8	5934	7506	640.43	21.67	618.76	
MW9R	4893	6990	639.05	19.98	619.07	
MW10C	5229	7554	637.45	18.46	618.99	Strong ether-like odor
MW23	4717	7404	633.31	14.22	619.09	
MW24	4596	8033	635.22	16.66	618.56	
MW28	5657	5695.6	648.77	29.21	619.56	
MW50	5269	5383	649.43	29.77	619.66	
MW51	5198	7767	634.16	15.55	618.61	
MW52	4996	7814	632.74	14.09	618.65	Well under pressure, strong ether-like odor
MW54R	5589.8	7592.2	637.51	18.61	618.90	
M4D	4949	6538	633.32	CNM	CNM	Griffith Landfill well had a new lock; did not have key to open

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOC = top of casing

CNM = could not measure (reason given under "Notes" column)

**Table 2**  
**Field Parameter Data - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Field Parameters					
	pH (std. units)	Electrical Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation- Reduction Potential (mV)
<b>Upper Aquifer Monitoring Wells</b>						
MW06	6.65	4.030	19.0	7	1.8	43
MW11	5.90	0.337	16.7	1	0.0	82
MW14	6.48	0.534	18.9	16	1.9	36
MW15	6.65	0.056	18.4	10	0.0	-120
MW17	6.83	0.750	16.5	131	0.0	-111
MW19	6.97	0.578	19.3	5	0.0	-202
MW42	6.97	0.728	20.5	12	0.0	-72
MW43	6.46	0.873	19.2	35	0.0	-46
MW44	7.21	0.697	17.5	11	0.0	-106
MW45	6.58	1.590	19.1	4	0.0	-107
MW48	6.63	1.070	17.5	3	0.0	-114
MW49	6.64	1.260	16.0	7	0.0	-116
<b>Residential Wells</b>						
PW-B	7.17	0.687	17.8	7	0.9	-158
PW-C	7.20	0.744	16.1	20	0.0	-162
PW-D	6.74	0.762	15.3	11	0.0	-141
PW-T	7.16	0.760	19.6	9	0.0	-169
PW-Y	7.10	0.753	18.8	10	0.1	-172

**Notes:**

Values are those recorded upon stabilization during groundwater purging

mS/cm = millSiemens per centimeter

°C = Degrees Centigrade

mV = millivolts

NTU = nephelometric turbidity units

mg/l = milligrams per liter

**Table 2**  
**Field Parameter Data - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Field Parameters					
	pH (std. units)	Electrical Conductivity (mS/cm)	Temperature (°C)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation- Reduction Potential (mV)
<b>Lower Aquifer Monitoring Wells</b>						
MW08	7.15	0.445	13.7	8	0.0	-202
MW09R	7.18	0.980	14.9	6	0.0	-144
MW10C	6.98	1.570	13.8	15	0.0	-148
MW23	6.65	1.220	13.6	19	0.0	-74
MW28	7.38	0.749	14.9	149	0.0	-119
MW29	6.70	0.943	13.6	3	0.0	-111
MW30	7.42	1.210	14.2	14	0.0	-168
MW31	6.99	0.676	13.2	28	0.0	-176
MW32	7.01	0.756	12.9	91	0.0	-167
MW33	7.01	2.210	13.9	8	0.0	-135
MW51	7.19	1.450	14.1	7	0.0	-145
MW52	6.85	1.300	16.6	9	0.0	-108
MW53	6.61	3.050	13.0	10	0.0	-99
MW54R	7.08	1.140	13.9	1	0.0	-224
MW55	6.94	0.805	13.7	77	0.0	-146
MW56	6.68	1.130	13.3	10	0.0	-184

Notes:

Values are those recorded upon stabilization during groundwater purging

mS/cm = millisiemens per centimeter

°C = Degrees Centigrade

mV = millivolts

NTU = nephelometric turbidity units

mg/l = milligrams per liter

**Table 3**  
**Summary of Groundwater Sampling Activities - September 2002**  
**American Chemical Service, Inc. NPL Site**  
**Griffith, Indiana**

<b>Monitoring Well ID</b>	<b>Location with Respect to Area of Groundwater Contamination</b>	<b>Indicator VOCs</b>	<b>Full Scan</b>
<b>Upper Aquifer Monitoring Wells</b>			
MW06	Interior	X	
MW11	Upgradient	X	
MW14	Downgradient	X	
MW15	Downgradient	X	
MW17	Upgradient	X	
MW19	Interior	X	
MW42	Downgradient	X	
MW43	Downgradient	X	
MW44	Downgradient	X	
MW45	Interior	X	
MW48	Interior	X	
MW49	Interior	X	
<b>Residential Wells</b>			
PW-B	Upgradient		X
PW-C	Upgradient		X
PW-D	Upgradient		X
PW-T	Upgradient		X
PW-Y	Upgradient		X

Notes:

X - Indicates sample was analyzed for selected parameter.

VOCs - Volatile organic compounds; indicator VOCs include benzene, chloroethane, tetrachloroethene, trichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride.

Full Scan - Includes low-concentration VOCs, low-concentration semi-volatile organic compounds, low-concentration pesticides and PCBs, metals, and cyanide

**Table 3**  
**Summary of Groundwater Sampling Activities - September 2002**  
**American Chemical Service, Inc. NPL Site**  
**Griffith, Indiana**

<b>Monitoring Well ID</b>	<b>Location with Respect to Area of Groundwater Contamination</b>	<b>Indicator VOCs</b>	<b>Full Scan</b>
<b>Lower Aquifer Monitoring Wells</b>			
MW08	Downgradient	X	
MW09R	Interior	X	
MW10C	Interior	X	
MW23	Downgradient	X	
MW28	Upgradient	X	
MW29	Interior	X	
MW30	Downgradient	X	
MW31	Downgradient	X	
MW32	Downgradient	X	
MW33	Downgradient	X	
MW51	Downgradient	X	
MW52	Downgradient	X	
MW53	Downgradient	X	
MW54R	Downgradient	X	
MW55	Downgradient	X	
MW56	Interior	X	

Notes:

X - Indicates sample was analyzed for selected parameter.

VOCs - Volatile organic compounds; indicator VOCs include benzene, chloroethane, tetrachloroethene, trichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride.

Full Scan - Includes low-concentration VOCs, low-concentration semi-volatile organic compounds, low-concentration pesticides and PCBs, metals, and cyanide

**Table 4**  
**Upper Aquifer Analytical Results - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Parameter (ug/l)	MW-06		MW-11		MW-14		MW-15		MW-17		MW-19			
	Interior		Upgradient		Downgradient		Downgradient		Upgradient		Interior			
	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV		
<b>VOCs</b>														
Benzene	5	U/		<b>0.9</b>	JB/UB	<i>10</i>	5	U/		<b>5</b>	<i>10</i>	5	U/	
Chloroethane	5	U/		5	U/		5	U/		<b>2</b>	J/	<i>10</i>	5	U/
Tetrachloroethene	5	U/		5	U/		5	U/		5	U/	<b>1</b>	J/	
Trichloroethene	5	U/		5	U/		5	U/		5	U/	5	U/	
1,1-Dichloroethane	5	U/		5	U/		5	U/		5	U/	5	U/	
1,1-Dichloroethene	5	U/		5	U/		5	U/		5	U/	5	U/	
1,2-Dichloroethane	5	U/		5	U/		5	U/		5	U/	5	U/	
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/	5	U/	
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/	5	U/	
Vinyl Chloride	5	U/		5	U/		5	U/		5	U/	5	U/	

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for  
detected compounds)

X/ = Data qualifier added by laboratory

/X = Data qualifier added by data validator

U = Compound was analyzed for but not detected

J = Estimated value; concentration is below  
reporting limit

B = Indicates analyte detected in associated blank

D = Results based on diluted sample

UB = Analyte is not detected at or above the  
indicated concentration due to blank contamination**Bold** result indicates the compound was  
detected**Bold** and Boxed results indicates an  
exceedance of the baseline value of that  
compound.

**Table 4**  
**Upper Aquifer Analytical Results - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Parameter (ug/l)	MW-42		MW-43		MW-44		MW-45		MW-48		MW-49	
	Downgradient		Downgradient		Downgradient		Interior		Interior		Interior	
	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV
<b>VOCs</b>												
Benzene	5	U/		5	U/		5	U/	8	1,045	1,300	D/B
Chloroethane	5	U/		5	U/		5	U/	13	215	32	1000
Tetrachloroethene	5	U/		5	U/		5	U/			5	U/
Trichloroethene	5	U/		5	U/		5	U/			5	U/
1,1-Dichloroethane	5	U/		5	U/		5	U/			5	U/
1,1-Dichloroethene	5	U/		5	U/		5	U/			5	U/
1,2-Dichloroethane	5	U/		5	U/		5	U/			5	U/
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/			5	U/
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/			5	U/
Vinyl Chloride	5	U/		5	U/		5	U/			5	U/

**Notes:**

ug/l = micrograms per liter.

BV = Baseline Value (only provided for  
detected compounds)

X/ = Data qualifier added by laboratory

/X = Data qualifier added by data validator

U = Compound was analyzed for but not detected

J = Estimated value; concentration is below  
reporting limit

B = Indicates analyte detected in associated blank

D = Results based on diluted sample

UB = Analyte is not detected at or above the  
indicated concentration due to blank contamination**Bold** result indicates the compound was  
detected**Bold** and Boxed results indicates an  
exceedance of the baseline value of that  
compound.

**Table 5**  
**Lower Aquifer Analytical Results - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Parameter (ug/l)	MW-08		MW-09R		MW-10C		MW-23		MW-28		MW-29		MW-30		
	Downgradient		Interior		Interior		Downgradient		Upgradient		Interior		Downgradient		
	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	Sep-02	BV	
<b>VOCs</b>															
Benzene	5	U/		<b>9</b>	310	<b>370</b> D/B	150	5	U/		5	U/		<b>1</b> J/ 10	5 U/
Chloroethane	5	U/		<b>130</b> D/	2,900	<b>380</b> D/	420	5	U/		5	U/		<b>13</b> 10	5 U/
Tetrachloroethene	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
Trichloroethene	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
1,1-Dichloroethane	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
1,1-Dichloroethene	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
1,2-Dichloroethane	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
cis-1,2-Dichloroethene	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
trans-1,2-Dichloroethene	5	U/		5 U/		5 U/		5	U/		5	U/		5 U/	5 U/
Vinyl Chloride	5	U/		5 U/		<b>0.5</b> J/	129	5	U/		5	U/		5 U/	5 U/

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for  
detected compounds)

BV\* = Baseline study not completed for this well

NA = Not Analyzed

X/ = Data qualifier added by laboratory

/X = Data qualifier added by data validator

U = Compound was analyzed for but not detected

J = Estimated value; concentration is below  
reporting limit

B = Indicates analyte detected in associated blank

D = Results based on diluted sample

UB = Analyte is not detected at or above the  
indicated concentration due to blank contamination**Bold** result indicates the compound was  
detected**Bold** and Boxed results indicates the an  
exceedance of the baseline value of that  
compound.

**Table 5**  
**Lower Aquifer Analytical Results - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Parameter (ug/l)	MW-31		MW-32		MW-33		MW-51		MW-52		MW-53		MW-54R		
	Downgradient		Downgradient		Downgradient		Downgradient		Downgradient		Downgradient		Downgradient		
	Sep-02	BV													
<b>VOCs</b>															
Benzene	5	U/		5	U/		5	U/		5	U/		<b>5</b>	10	<b>1</b> J/ 10
Chloroethane	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
Tetrachloroethene	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
Trichloroethene	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
1,1-Dichloroethane	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
1,1-Dichloroethene	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
1,2-Dichloroethane	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
cis-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
trans-1,2-Dichloroethene	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/
Vinyl Chloride	5	U/		5	U/		5	U/		5	U/		5	U/	5 U/

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for

detected compounds)

BV\* = Baseline study not completed for this well

NA = Not Analyzed

X/ = Data qualifier added by laboratory

/X = Data qualifier added by data validator

U = Compound was analyzed for but not detected

J = Estimated value; concentration is below

reporting limit

B = Indicates analyte detected in associated blank

D = Results based on diluted sample

UB = Analyte is not detected at or above the

indicated concentration due to blank contamination

**Bold** result indicates the compound was  
detected**Bold** and Boxed results indicates the an  
exceedance of the baseline value of that  
compound.

**Table 5**  
**Lower Aquifer Analytical Results - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Parameter (ug/l)	MW-55		MW56	
	Downgradient		Interior	
	Sep-02	BV	Sep-02	BV*
<b>VOCs</b>				
Benzene	5	U/	<b>460</b>	D/
Chloroethane	5	U/	<b>6</b>	
Tetrachloroethene	5	U/	5	U/
Trichloroethene	5	U/	5	U/
1,1-Dichloroethane	5	U/	5	U/
1,1-Dichloroethene	5	U/	5	U/
1,2-Dichloroethane	5	U/	5	U/
cis-1,2-Dichloroethene	5	U/	5	U/
trans-1,2-Dichloroethene	5	U/	5	U/
Vinyl Chloride	5	U/	5	U/

Notes:

ug/l = micrograms per liter.

BV = Baseline Value (only provided for  
detected compounds)

BV\* = Baseline study not completed for this well

NA = Not Analyzed

X/ = Data qualifier added by laboratory

/X = Data qualifier added by data validator

U = Compound was analyzed for but not detected

J = Estimated value; concentration is below  
reporting limit

B = Indicates analyte detected in associated blank

D = Results based on diluted sample

UB = Analyte is not detected at or above the  
indicated concentration due to blank contaminationBold result indicates the compound was  
detected
**Bold** and Boxed results indicates the an  
exceedance of the baseline value of that  
compound.

**Table 6**  
**Summary of Organic Compound Detections in Residential Wells - September 2002**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Parameter	U.S. EPA MCL	PW-B				PW-C			PW-D		PW-T		PW-Y		
		Sep-02	RL	Oct-02	RL	Sep-02	RL	Sep-02	RL	Sep-02	RL	Sep-02	DL		
<b>Volatile Organic Compounds</b>															
Acetone	NA	2.0	JB/UB	3			2	JB/UB	3	2	JB/UB	3	2	JB/UB	3
Bromomethane	NA								0.1	JB/UB	0.5	0.1	JB/UB	0.5	
Chlorobenzene	100					0.03	J/	0.5							
Chloromethane	NA	0.3	J/UB	0.5		0.1	J/UB	0.5	0.3	JB/UB	0.5		0.4	JB/UB	0.5
Methylene Chloride	NA	0.5	B/UB	0.5		0.5	B/UB	0.5	0.5	B/UB	0.5	0.5	JB/UB	0.5	
Toluene	1,000	0.1	JB/UB	0.5		0.2	JB/UB	0.5	0.1	JB/UB	0.5	0.2	JB/UB	0.5	
Xylene (total)	10,000	0.07	JB/UB	0.5				0.09	JB/UB	0.5			0.09	JB/UB	0.5
<b>Semi-volatile Organic Compounds</b>				All ND		All ND		All ND		All ND		All ND			
Bis(2-ethylhexyl)phthalate	6	23	5												
<b>PCBs/Pesticides</b>		All ND				All ND		All ND		All ND		All ND			

Notes:

All results in micrograms per liter (ug/l).

A blank cell indicates parameter not detected.

PW-B was only sampled for SVOC during Oct-02

Only detected parameters listed.

MCL = Maximum Contaminant Level

NA = MCL does not exist for this analyte

RL = Reporting Limit

ND = Not detected

X/ = Data qualifier added by laboratory

/X = Data qualifier added by validation

J = Estimated value; concentration detected is below reporting limit

B = Indicates analyte detected in laboratory blank

UB = Analyte is not detected at or above the indicated concentration due to blank contamination.

**Table 7**  
**Summary of Inorganic Compound Detections in Residential Wells - September 2002**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Analyte	U.S. EPA MCL	MDL (ug/l)	PQL (ug/l)	Sample Location and Concentration (ug/l)				
				PW-B	PW-C	PW-D	PW-T	PW-Y
Aluminum	NA	7.6	100					8.1 J/UB
Antimony	6	1.7	10	3.4 J/UB	3.4 J/UB	3.0 J/UB	3.1 J/UB	
Arsenic	50	2.5	10					
Barium	2,000	1.3	10	131 /B	157 /B	152 /B	152 /B	152 /B
Beryllium	4	0.2	5					
Cadmium	5	0.4	5					
Calcium	NA	12.3	1000	87,300	84,700	89,800	90,000	85,600
Chromium	100	0.4	5	0.65 J/UB	0.49 J/UB	1.2 J/UB		
Cobalt	NA	0.4	5					
Copper	1,300	1	5			1.7 J/UB	4.4 J/UB	1.1 J/UB
Cyanide	200	1.5	10					
Iron	NA	12.2	100	2,820	2,350	2,250	2,360	3,480
Lead	15	1.3	3			1.8 J/		
Magnesium	NA	3.9	1000	41,200 /B	48,100 /B	47,400 /B	49,100 /B	46,400 /B
Manganese	NA	1.8	10	57.7	33.3	30.4	32.6	35.4
Mercury	2	0.1	0.2					
Nickel	NA	0.6	5					
Potassium	NA	26.9	1000	2,270 /B	2,840 /B	2,960 /B	3,110 /B	3290 /B
Selenium	50	1.7	5					
Silver	NA	0.5	0.5					
Sodium	NA	154	2000	15,900 E/	17,300 E/	17,100 E/	19,600 E/	23,100 E/
Thallium	2	4.2	20					
Vanadium	NA	0.3	20					
Zinc	NA	2.2	20	12.4 J/B	5.5 J/UB	14.7 J/B	33.4 /B	13.4 J/B

Notes:

All results in micrograms per liter (ug/l).

A blank cell indicates parameter not detected.

MCL = Maximum Contaminant Level

NA = MCL does not exist for this analyte

MDL = Method Detection Limit

PQL = Practical Quantitation Limit; compiled from recent Compuchem data and QAPP

X/ = Data qualifier added by laboratory

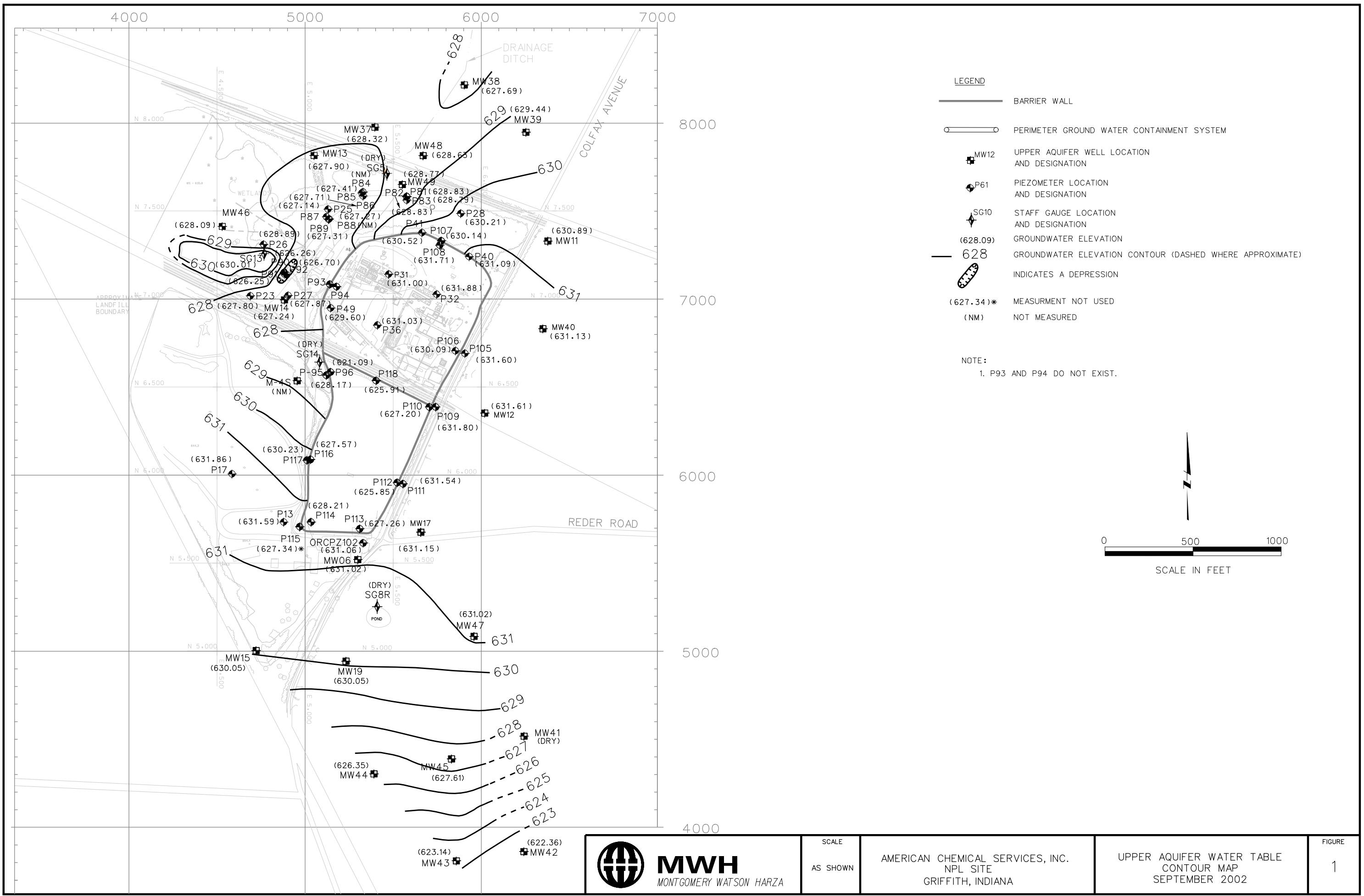
/X = Data qualifier added by validation

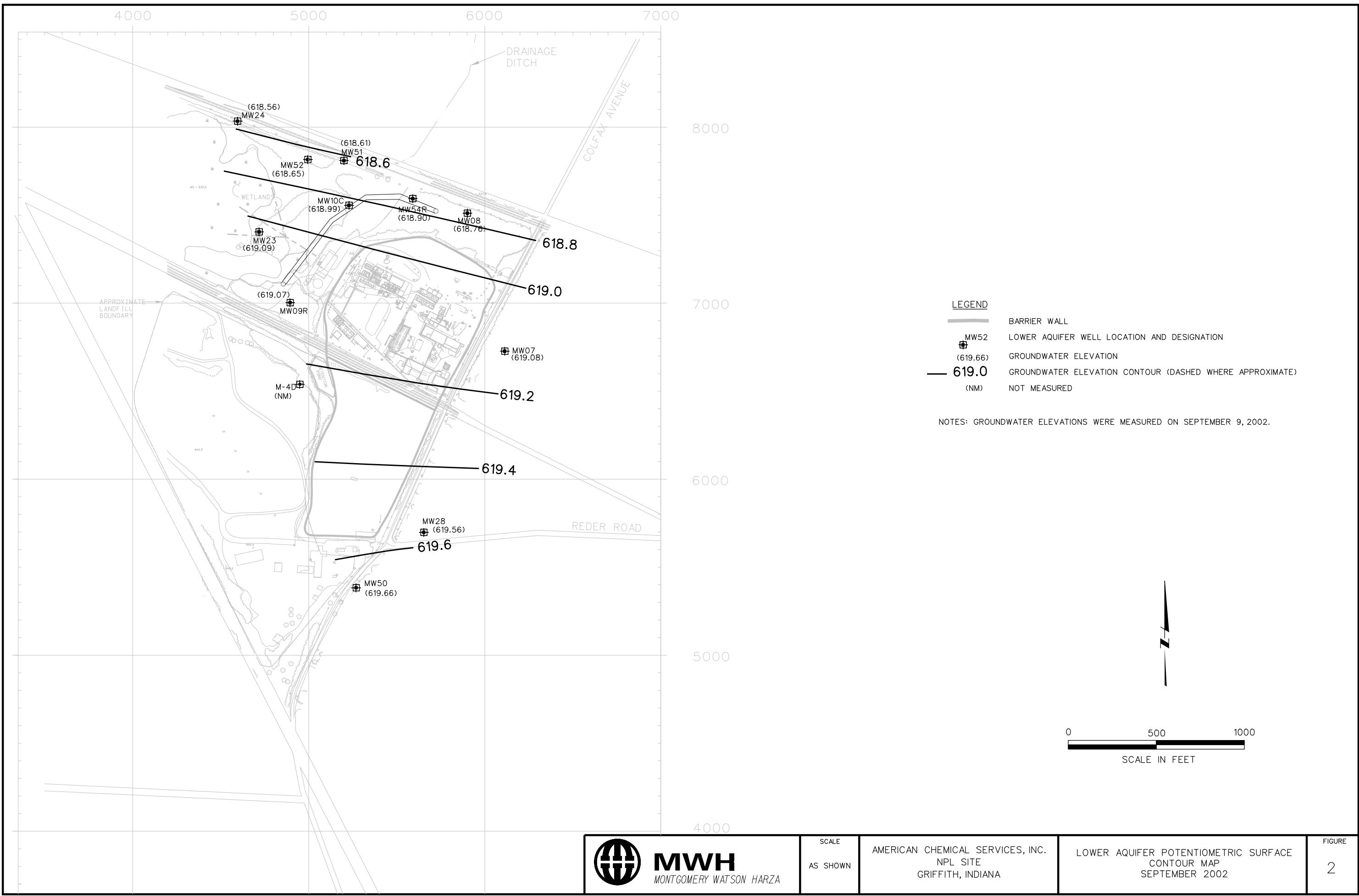
J = Compound was detected but at concentrations below the PQL. It is considered an estimated concentration (reported as 'B' flag by lab)

E = Concentration is estimated due to chemical or physical interference effect during analysis.

B = Indicates analyte detected in laboratory blank

UB = Analyte is not detected at or above the indicated concentration due to blank contamination.



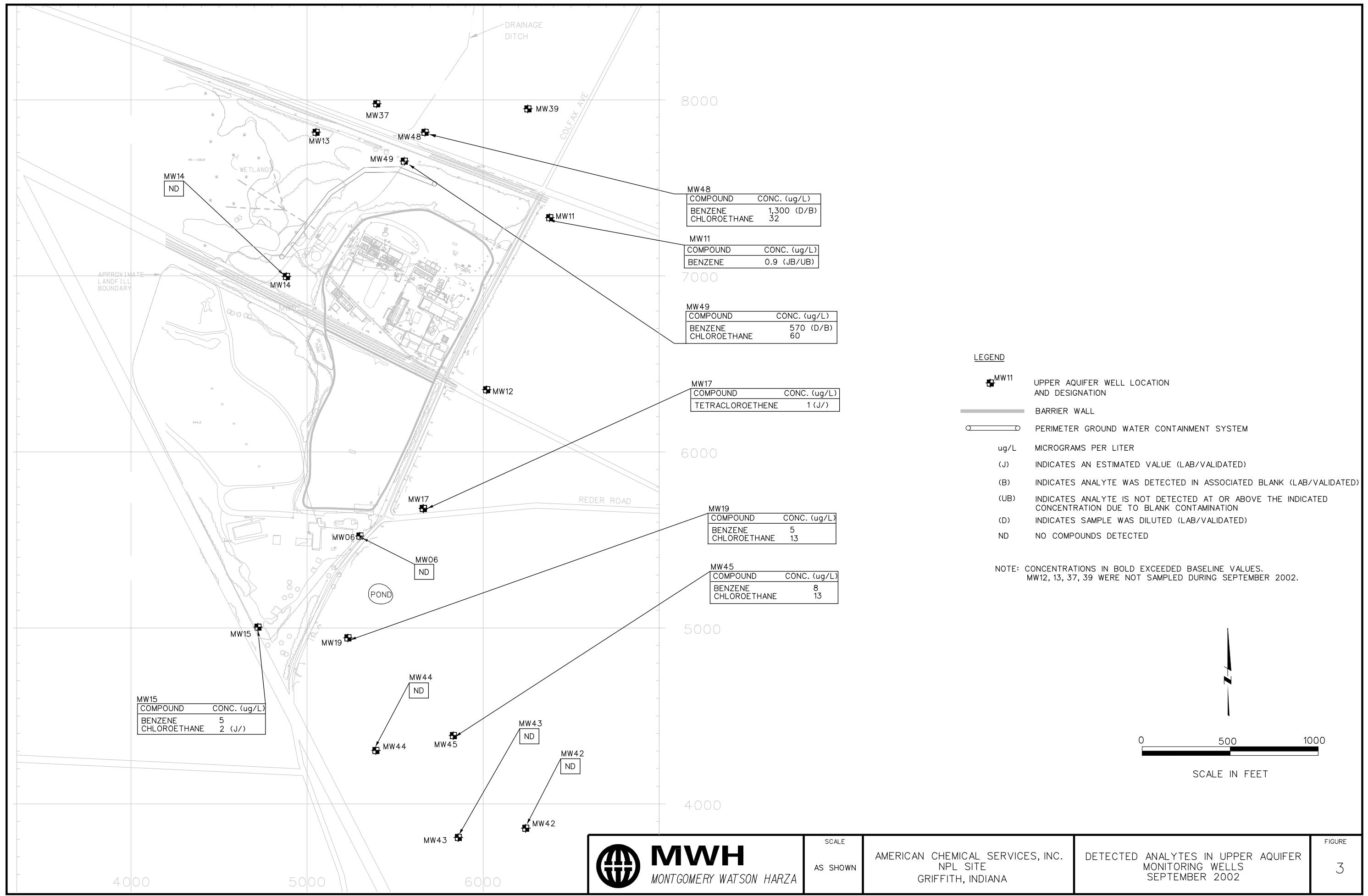


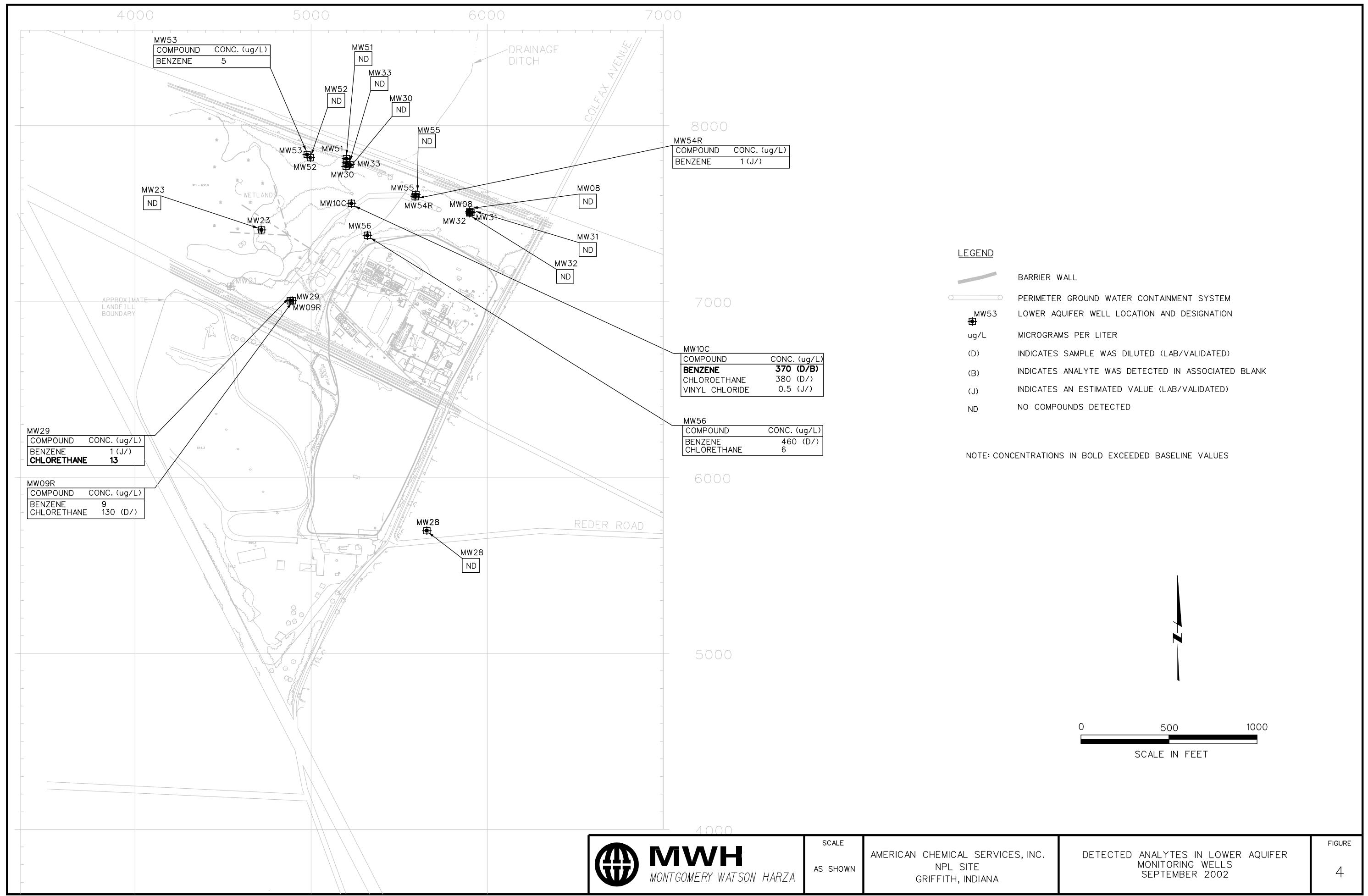
**MWH**  
MONTGOMERY WATSON HARZA

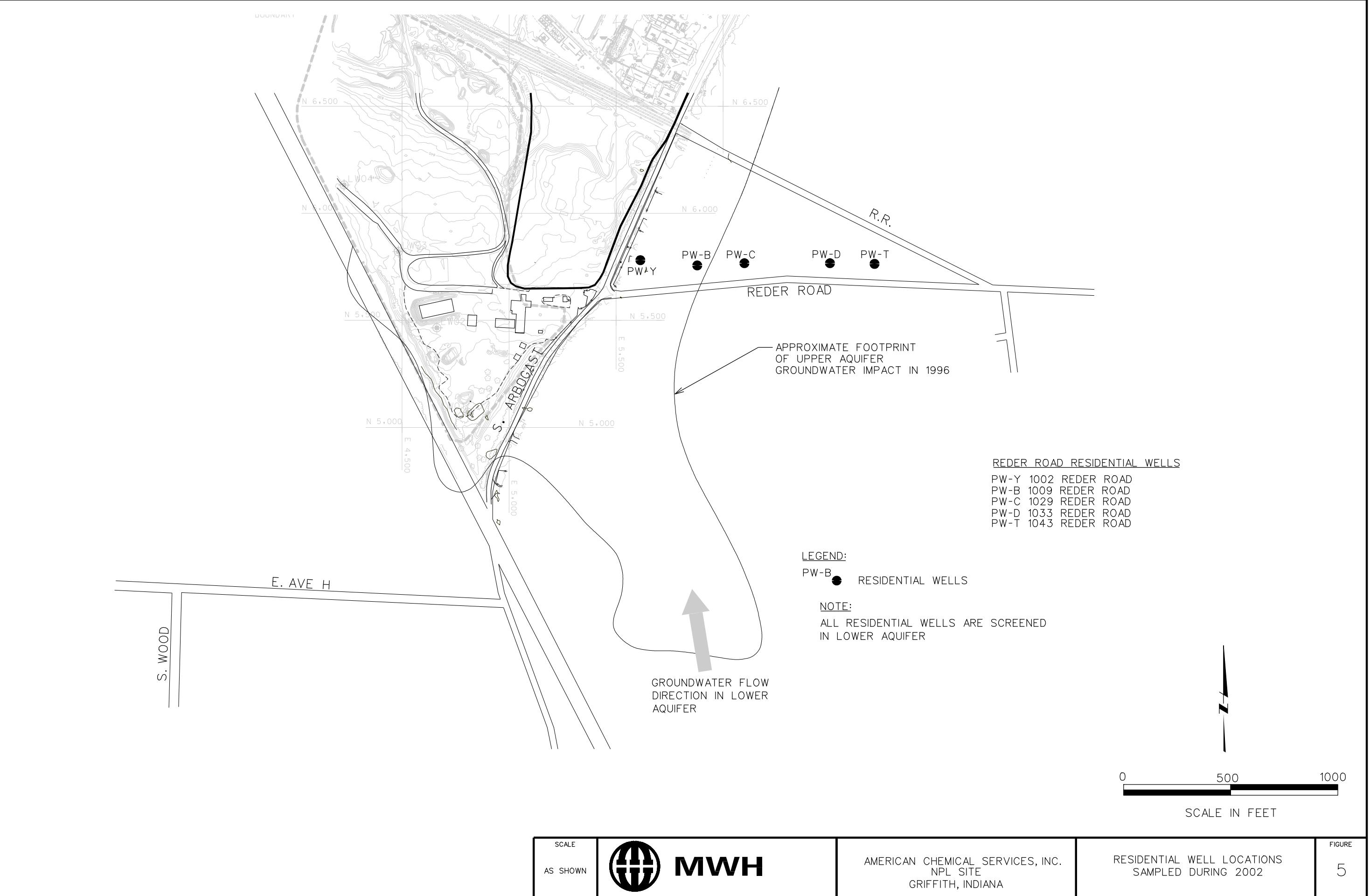
SCALE  
AS SHOWN

AMERICAN CHEMICAL SERVICES, INC.  
NPL SITE  
GRIFFITH, INDIANA

LOWER AQUIFER POTENTIOMETRIC SURFACE  
CONTOUR MAP  
SEPTEMBER 2002







## **Appendix A**

### **Comparison of Analytical Results to Maximum Baseline Concentrations**

Monitoring Wells – Volatile Organic Compounds

Residential Wells – Volatile Organic Compounds

Semi-Volatile Organic Compounds

Pesticides and PCB

Inorganics

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-06	1,1-Dichloroethane	UG/L	21	U			5
MW-06	1,1-Dichloroethene	UG/L	50	U			5
MW-06	1,2-Dichloroethane	UG/L	50	U			5
MW-06	Benzene	UG/L	320	U			5
MW-06	Chloroethane	UG/L	720	U			5
MW-06	cis-1,2-Dichloroethene	UG/L		U			5
MW-06	Tetrachloroethene	UG/L	50	U			5
MW-06	trans-1,2-Dichloroethene	UG/L		U			5
MW-06	Trichloroethene	UG/L	50	U			5
MW-06	Vinyl chloride	UG/L	50	U			5
MW-08	1,1-Dichloroethane	UG/L	10	U			5
MW-08	1,1-Dichloroethene	UG/L	10	U			5
MW-08	1,2-Dichloroethane	UG/L	10	U			5
MW-08	Benzene	UG/L	10	U			5
MW-08	Chloroethane	UG/L	10	U			5
MW-08	cis-1,2-Dichloroethene	UG/L		U			5
MW-08	Tetrachloroethene	UG/L	10	U			5
MW-08	trans-1,2-Dichloroethene	UG/L		U			5
MW-08	Trichloroethene	UG/L	10	U			5
MW-08	Vinyl chloride	UG/L	10	U			5
MW-09R	1,1-Dichloroethane	UG/L	200	U			5
MW-09R	1,1-Dichloroethene	UG/L	200	U			5
MW-09R	1,2-Dichloroethane	UG/L	200	U			5
MW-09R	Benzene	UG/L	310	9			5
MW-09R	Chloroethane	UG/L	2,900	130	D		7
MW-09R	cis-1,2-Dichloroethene	UG/L		U			5
MW-09R	Tetrachloroethene	UG/L	200	U			5
MW-09R	trans-1,2-Dichloroethene	UG/L		U			5
MW-09R	Trichloroethene	UG/L	200	U			5
MW-09R	Vinyl chloride	UG/L	200	U			5
MW-10C	1,1-Dichloroethane	UG/L	150	U			5
MW-10C	1,1-Dichloroethene	UG/L	150	U			5
MW-10C	1,2-Dichloroethane	UG/L	150	U			5
MW-10C	Benzene	UG/L	150	<b>370</b>	D	B	17
MW-10C	Chloroethane	UG/L	420	380	D		17
MW-10C	cis-1,2-Dichloroethene	UG/L		U			5
MW-10C	Tetrachloroethene	UG/L	150	U			5
MW-10C	trans-1,2-Dichloroethene	UG/L		U			5
MW-10C	Trichloroethene	UG/L	150	U			5
MW-10C	Vinyl chloride	UG/L	129	0.5	J		5
MW-11	1,1-Dichloroethane	UG/L	10	U			5
MW-11	1,1-Dichloroethene	UG/L	10	U			5
MW-11	1,2-Dichloroethane	UG/L	10	U			5
MW-11	Benzene	UG/L	10	0.9	JB	UB	5
MW-11	Chloroethane	UG/L	10	U			5
MW-11	cis-1,2-Dichloroethene	UG/L		U			5

**BOLD** = Exceedance

NA = Not Applicable

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-11	Tetrachloroethene	UG/L	10		U		5
MW-11	trans-1,2-Dichloroethene	UG/L			U		5
MW-11	Trichloroethene	UG/L	10		U		5
MW-11	Vinyl chloride	UG/L	10		U		5
MW-14	1,1-Dichloroethane	UG/L	100		U		5
MW-14	1,1-Dichloroethene	UG/L	100		U		5
MW-14	1,2-Dichloroethane	UG/L	100		U		5
MW-14	Benzene	UG/L	41		U		5
MW-14	Chloroethane	UG/L	1,000		U		5
MW-14	cis-1,2-Dichloroethene	UG/L			U		5
MW-14	Tetrachloroethene	UG/L	100		U		5
MW-14	trans-1,2-Dichloroethene	UG/L			U		5
MW-14	Trichloroethene	UG/L	100		U		5
MW-14	Vinyl chloride	UG/L	100		U		5
MW-15	1,1-Dichloroethane	UG/L	10		U		5
MW-15	1,1-Dichloroethene	UG/L	10		U		5
MW-15	1,2-Dichloroethane	UG/L	10		U		5
MW-15	Benzene	UG/L	10	5			5
MW-15	Chloroethane	UG/L	10	2	J		5
MW-15	cis-1,2-Dichloroethene	UG/L			U		5
MW-15	Tetrachloroethene	UG/L	10		U		5
MW-15	trans-1,2-Dichloroethene	UG/L			U		5
MW-15	Trichloroethene	UG/L	10		U		5
MW-15	Vinyl chloride	UG/L	10		U		5
MW-17	1,1-Dichloroethane	UG/L			U		5
MW-17	1,1-Dichloroethene	UG/L			U		5
MW-17	1,2-Dichloroethane	UG/L			U		5
MW-17	Benzene	UG/L			U		5
MW-17	Chloroethane	UG/L			U		5
MW-17	cis-1,2-Dichloroethene	UG/L			U		5
MW-17	Tetrachloroethene	UG/L		1	J		5
MW-17	trans-1,2-Dichloroethene	UG/L			U		5
MW-17	Trichloroethene	UG/L			U		5
MW-17	Vinyl chloride	UG/L			U		5
MW-19	1,1-Dichloroethane	UG/L	10		U		5
MW-19	1,1-Dichloroethene	UG/L	10		U		5
MW-19	1,2-Dichloroethane	UG/L	10		U		5
MW-19	Benzene	UG/L	10	5			5
MW-19	Chloroethane	UG/L	20	13			5
MW-19	cis-1,2-Dichloroethene	UG/L			U		5
MW-19	Tetrachloroethene	UG/L	10		U		5
MW-19	trans-1,2-Dichloroethene	UG/L			U		5
MW-19	Trichloroethene	UG/L	10		U		5
MW-19	Vinyl chloride	UG/L	10		U		5
MW-23	1,1-Dichloroethane	UG/L	10		U		5
MW-23	1,1-Dichloroethene	UG/L	10		U		5

**BOLD** = Exceedance

NA = Not Applicable

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-23	1,2-Dichloroethane	UG/L	10	U			5
MW-23	Benzene	UG/L	10	U			5
MW-23	Chloroethane	UG/L	10	U			5
MW-23	cis-1,2-Dichloroethene	UG/L		U			5
MW-23	Tetrachloroethene	UG/L	10	U			5
MW-23	trans-1,2-Dichloroethene	UG/L		U			5
MW-23	Trichloroethene	UG/L	10	U			5
MW-23	Vinyl chloride	UG/L	10	U			5
MW-28	1,1-Dichloroethane	UG/L	10	U			5
MW-28	1,1-Dichloroethene	UG/L	10	U			5
MW-28	1,2-Dichloroethane	UG/L	10	U			5
MW-28	Benzene	UG/L	10	U			5
MW-28	Chloroethane	UG/L	10	U			5
MW-28	cis-1,2-Dichloroethene	UG/L		U			5
MW-28	Tetrachloroethene	UG/L	10	U			5
MW-28	trans-1,2-Dichloroethene	UG/L		U			5
MW-28	Trichloroethene	UG/L	10	U			5
MW-28	Vinyl chloride	UG/L	10	U			5
MW-29	1,1-Dichloroethane	UG/L	10	U			5
MW-29	1,1-Dichloroethene	UG/L	10	U			5
MW-29	1,2-Dichloroethane	UG/L	10	U			5
MW-29	Benzene	UG/L	10	1	J		5
MW-29	Chloroethane	UG/L	10	<b>13</b>			5
MW-29	cis-1,2-Dichloroethene	UG/L		U			5
MW-29	Tetrachloroethene	UG/L	10	U			5
MW-29	trans-1,2-Dichloroethene	UG/L		U			5
MW-29	Trichloroethene	UG/L	10	U			5
MW-29	Vinyl chloride	UG/L	10	U			5
MW-30	1,1-Dichloroethane	UG/L	10	U			5
MW-30	1,1-Dichloroethene	UG/L	10	U			5
MW-30	1,2-Dichloroethane	UG/L	10	U			5
MW-30	Benzene	UG/L	10	U			5
MW-30	Chloroethane	UG/L	10	U			5
MW-30	cis-1,2-Dichloroethene	UG/L		U			5
MW-30	Tetrachloroethene	UG/L	10	U			5
MW-30	trans-1,2-Dichloroethene	UG/L		U			5
MW-30	Trichloroethene	UG/L	10	U			5
MW-30	Vinyl chloride	UG/L	10	U			5
MW-31	1,1-Dichloroethane	UG/L	10	U			5
MW-31	1,1-Dichloroethene	UG/L	10	U			5
MW-31	1,2-Dichloroethane	UG/L	10	U			5
MW-31	Benzene	UG/L	10	U			5
MW-31	Chloroethane	UG/L	10	U			5
MW-31	cis-1,2-Dichloroethene	UG/L		U			5
MW-31	Tetrachloroethene	UG/L	10	U			5
MW-31	trans-1,2-Dichloroethene	UG/L		U			5

**BOLD** = Exceedance

NA = Not Applicable

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-31	Trichloroethene	UG/L	10	U			5
MW-31	Vinyl chloride	UG/L	10	U			5
MW-32	1,1-Dichloroethane	UG/L	10	U			5
MW-32	1,1-Dichloroethene	UG/L	10	U			5
MW-32	1,2-Dichloroethane	UG/L	10	U			5
MW-32	Benzene	UG/L	10	U			5
MW-32	Chloroethane	UG/L	10	U			5
MW-32	cis-1,2-Dichloroethene	UG/L		U			5
MW-32	Tetrachloroethene	UG/L	10	U			5
MW-32	trans-1,2-Dichloroethene	UG/L		U			5
MW-32	Trichloroethene	UG/L	10	U			5
MW-32	Vinyl chloride	UG/L	10	U			5
MW-33	1,1-Dichloroethane	UG/L	10	U			5
MW-33	1,1-Dichloroethene	UG/L	10	U			5
MW-33	1,2-Dichloroethane	UG/L	10	U			5
MW-33	Benzene	UG/L	10	U			5
MW-33	Chloroethane	UG/L	10	U			5
MW-33	cis-1,2-Dichloroethene	UG/L		U			5
MW-33	Tetrachloroethene	UG/L	10	U			5
MW-33	trans-1,2-Dichloroethene	UG/L		U			5
MW-33	Trichloroethene	UG/L	10	U			5
MW-33	Vinyl chloride	UG/L	10	U			5
MW-42	1,1-Dichloroethane	UG/L	10	U			5
MW-42	1,1-Dichloroethene	UG/L	10	U			5
MW-42	1,2-Dichloroethane	UG/L	10	U			5
MW-42	Benzene	UG/L	10	U			5
MW-42	Chloroethane	UG/L	10	U			5
MW-42	cis-1,2-Dichloroethene	UG/L		U			5
MW-42	Tetrachloroethene	UG/L	10	U			5
MW-42	trans-1,2-Dichloroethene	UG/L		U			5
MW-42	Trichloroethene	UG/L	10	U			5
MW-42	Vinyl chloride	UG/L	10	U			5
MW-43	1,1-Dichloroethane	UG/L	10	U			5
MW-43	1,1-Dichloroethene	UG/L	10	U			5
MW-43	1,2-Dichloroethane	UG/L	10	U			5
MW-43	Benzene	UG/L	10	U			5
MW-43	Chloroethane	UG/L	10	U			5
MW-43	cis-1,2-Dichloroethene	UG/L		U			5
MW-43	Tetrachloroethene	UG/L	10	U			5
MW-43	trans-1,2-Dichloroethene	UG/L		U			5
MW-43	Trichloroethene	UG/L	10	U			5
MW-43	Vinyl chloride	UG/L	10	U			5
MW-44	1,1-Dichloroethane	UG/L	10	U			5
MW-44	1,1-Dichloroethene	UG/L	10	U			5
MW-44	1,2-Dichloroethane	UG/L	10	U			5
MW-44	Benzene	UG/L	10	U			5

**BOLD** = Exceedance

NA = Not Applicable

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-44	Chloroethane	UG/L	10		U		5
MW-44	cis-1,2-Dichloroethene	UG/L			U		5
MW-44	Tetrachloroethene	UG/L	10		U		5
MW-44	trans-1,2-Dichloroethene	UG/L			U		5
MW-44	Trichloroethene	UG/L	10		U		5
MW-44	Vinyl chloride	UG/L	10		U		5
MW-45	1,1-Dichloroethane	UG/L	80		U		5
MW-45	1,1-Dichloroethene	UG/L	80		U		5
MW-45	1,2-Dichloroethane	UG/L	80		U		5
MW-45	Benzene	UG/L	1,045	8			5
MW-45	Chloroethane	UG/L	215	13			5
MW-45	cis-1,2-Dichloroethene	UG/L			U		5
MW-45	Tetrachloroethene	UG/L	80		U		5
MW-45	trans-1,2-Dichloroethene	UG/L			U		5
MW-45	Trichloroethene	UG/L	80		U		5
MW-45	Vinyl chloride	UG/L	80		U		5
MW-48	1,1-Dichloroethane	UG/L	500		U		5
MW-48	1,1-Dichloroethene	UG/L	500		U		5
MW-48	1,2-Dichloroethane	UG/L	500		U		5
MW-48	Benzene	UG/L	9,500	1,300	D	B	50
MW-48	Chloroethane	UG/L	1,000	32			5
MW-48	cis-1,2-Dichloroethene	UG/L			U		5
MW-48	Tetrachloroethene	UG/L	500		U		5
MW-48	trans-1,2-Dichloroethene	UG/L			U		5
MW-48	Trichloroethene	UG/L	500		U		5
MW-48	Vinyl chloride	UG/L	500		U		5
MW-49	1,1-Dichloroethane	UG/L	500		U		5
MW-49	1,1-Dichloroethene	UG/L	500		U		5
MW-49	1,2-Dichloroethane	UG/L	500		U		5
MW-49	Benzene	UG/L	6,750	570	D	B	25
MW-49	Chloroethane	UG/L	715	60			5
MW-49	cis-1,2-Dichloroethene	UG/L			U		5
MW-49	Tetrachloroethene	UG/L	500		U		5
MW-49	trans-1,2-Dichloroethene	UG/L			U		5
MW-49	Trichloroethene	UG/L	500		U		5
MW-49	Vinyl chloride	UG/L	500		U		5
MW-51	1,1-Dichloroethane	UG/L	100		U		5
MW-51	1,1-Dichloroethene	UG/L	100		U		5
MW-51	1,2-Dichloroethane	UG/L	100		U		5
MW-51	Benzene	UG/L	100		U		5
MW-51	Chloroethane	UG/L	100		U		5
MW-51	cis-1,2-Dichloroethene	UG/L			U		5
MW-51	Tetrachloroethene	UG/L	100		U		5
MW-51	trans-1,2-Dichloroethene	UG/L			U		5
MW-51	Trichloroethene	UG/L	100		U		5
MW-51	Vinyl chloride	UG/L	100		U		5

**BOLD** = Exceedance

NA = Not Applicable

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-52	1,1-Dichloroethane	UG/L	100		U		5
MW-52	1,1-Dichloroethene	UG/L	100		U		5
MW-52	1,2-Dichloroethane	UG/L	100		U		5
MW-52	Benzene	UG/L	100		U		5
MW-52	Chloroethane	UG/L	100		U		5
MW-52	cis-1,2-Dichloroethene	UG/L			U		5
MW-52	Tetrachloroethene	UG/L	100		U		5
MW-52	trans-1,2-Dichloroethene	UG/L			U		5
MW-52	Trichloroethene	UG/L	100		U		5
MW-52	Vinyl chloride	UG/L	100		U		5
MW-53	1,1-Dichloroethane	UG/L	10		U		5
MW-53	1,1-Dichloroethene	UG/L	10		U		5
MW-53	1,2-Dichloroethane	UG/L	10		U		5
MW-53	Benzene	UG/L	10	5			5
MW-53	Chloroethane	UG/L	10		U		5
MW-53	cis-1,2-Dichloroethene	UG/L			U		5
MW-53	Tetrachloroethene	UG/L	10		U		5
MW-53	trans-1,2-Dichloroethene	UG/L			U		5
MW-53	Trichloroethene	UG/L	10		U		5
MW-53	Vinyl chloride	UG/L	10		U		5
MW-54R	1,1-Dichloroethane	UG/L	10		U		5
MW-54R	1,1-Dichloroethene	UG/L	10		U		5
MW-54R	1,2-Dichloroethane	UG/L	10		U		5
MW-54R	Benzene	UG/L	10	1	J		5
MW-54R	Chloroethane	UG/L	10		U		5
MW-54R	cis-1,2-Dichloroethene	UG/L			U		5
MW-54R	Tetrachloroethene	UG/L	10		U		5
MW-54R	trans-1,2-Dichloroethene	UG/L			U		5
MW-54R	Trichloroethene	UG/L	10		U		5
MW-54R	Vinyl chloride	UG/L	10		U		5
MW-55	1,1-Dichloroethane	UG/L	10		U		5
MW-55	1,1-Dichloroethene	UG/L	10		U		5
MW-55	1,2-Dichloroethane	UG/L	10		U		5
MW-55	Benzene	UG/L	10		U		5
MW-55	Chloroethane	UG/L	10		U		5
MW-55	cis-1,2-Dichloroethene	UG/L			U		5
MW-55	Tetrachloroethene	UG/L	10		U		5
MW-55	trans-1,2-Dichloroethene	UG/L			U		5
MW-55	Trichloroethene	UG/L	10		U		5
MW-55	Vinyl chloride	UG/L	10		U		5
MW-56	1,1-Dichloroethane	UG/L			U		5
MW-56	1,1-Dichloroethene	UG/L			U		5
MW-56	1,2-Dichloroethane	UG/L			U		5
MW-56	Benzene	UG/L		460	D		17
MW-56	Chloroethane	UG/L		6			5
MW-56	cis-1,2-Dichloroethene	UG/L			U		5

**BOLD** = Exceedance

NA = Not Applicable

**Monitoring Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
MW-56	Tetrachloroethene	UG/L		U			5
MW-56	trans-1,2-Dichloroethene	UG/L		U			5
MW-56	Trichloroethene	UG/L		U			5
MW-56	Vinyl chloride	UG/L		U			5

**BOLD** = Exceedance

NA = Not Applicable

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**Residential Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-B	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-B	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-B	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-B	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-B	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-B	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-B	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-B	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-B	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-B	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-B	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-B	2-Butanone	UG/L	5.0		U		3
PW-B	2-Hexanone	UG/L	5.0		U		3
PW-B	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-B	Acetone	UG/L	5.0	2	JB	UB	3
PW-B	Benzene	UG/L	1.0		U		0.5
PW-B	Bromodichloromethane	UG/L	1.0		U		0.5
PW-B	Bromoform	UG/L	1.0		U		0.5
PW-B	Bromomethane	UG/L	1.0		U		0.5
PW-B	Carbon disulfide	UG/L	1.0		U		0.5
PW-B	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-B	Chlorobenzene	UG/L	1.0		U		0.5
PW-B	Chloroethane	UG/L	1.0		U		0.5
PW-B	Chloroform	UG/L	1.0		U		0.5
PW-B	Chloromethane	UG/L	1.0	0.3	J	UB	0.5
PW-B	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-B	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-B	Dibromochloromethane	UG/L	1.0		U		0.5
PW-B	Ethyl Benzene	UG/L	1.0		U		0.5
PW-B	Methylene chloride	UG/L	1.0	0.5	B	UB	0.5
PW-B	Styrene	UG/L	1.0		U		0.5
PW-B	Tetrachloroethene	UG/L	1.0		U		0.5
PW-B	Toluene	UG/L	1.0	0.1	JB	UB	0.5
PW-B	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-B	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-B	Trichloroethene	UG/L	1.0		U		0.5
PW-B	Vinyl chloride	UG/L	1.0		U		0.5
PW-B	Xylenes (total)	UG/L	5.0	0.07	JB	UB	0.5
PW-C	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-C	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-C	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-C	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-C	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-C	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-C	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-C	1,2-Dichloroethane	UG/L	1.0		U		0.5

**BOLD** = Exceedance

NA = Not Applicable

Page 1

**Residential Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-C	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-C	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-C	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-C	2-Butanone	UG/L	5.0		U		3
PW-C	2-Hexanone	UG/L	5.0		U		3
PW-C	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-C	Acetone	UG/L	5.0	2	JB	UB	3
PW-C	Benzene	UG/L	1.0		U		0.5
PW-C	Bromodichloromethane	UG/L	1.0		U		0.5
PW-C	Bromoform	UG/L	1.0		U		0.5
PW-C	Bromomethane	UG/L	1.0		U		0.5
PW-C	Carbon disulfide	UG/L	1.0		U		0.5
PW-C	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-C	Chlorobenzene	UG/L	1.0	0.03	J		0.5
PW-C	Chloroethane	UG/L	1.0		U		0.5
PW-C	Chloroform	UG/L	1.0		U		0.5
PW-C	Chloromethane	UG/L	1.0	0.1	J	UB	0.5
PW-C	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-C	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-C	Dibromochloromethane	UG/L	1.0		U		0.5
PW-C	Ethyl Benzene	UG/L	1.0		U		0.5
PW-C	Methylene chloride	UG/L	1.0	0.5	B	UB	0.5
PW-C	Styrene	UG/L	1.0		U		0.5
PW-C	Tetrachloroethene	UG/L	1.0		U		0.5
PW-C	Toluene	UG/L	1.0	0.2	JB	UB	0.5
PW-C	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-C	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-C	Trichloroethene	UG/L	1.0		U		0.5
PW-C	Vinyl chloride	UG/L	1.0		U		0.5
PW-C	Xylenes (total)	UG/L	5.0		U		0.5
PW-D	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-D	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-D	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-D	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-D	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-D	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-D	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-D	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-D	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-D	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-D	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-D	2-Butanone	UG/L	5.0		U		3
PW-D	2-Hexanone	UG/L	5.0		U		3
PW-D	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-D	Acetone	UG/L	5.0	2	JB	UB	3
PW-D	Benzene	UG/L	1.0		U		0.5

**BOLD** = Exceedance

NA = Not Applicable

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**Residential Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-D	Bromodichloromethane	UG/L	1.0		U		0.5
PW-D	Bromoform	UG/L	1.0		U		0.5
PW-D	Bromomethane	UG/L	1.0	0.1	JB	UB	0.5
PW-D	Carbon disulfide	UG/L	1.0		U		0.5
PW-D	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-D	Chlorobenzene	UG/L	1.0		U		0.5
PW-D	Chloroethane	UG/L	1.0		U		0.5
PW-D	Chloroform	UG/L	1.0		U		0.5
PW-D	Chloromethane	UG/L	1.0	0.3	J	UB	0.5
PW-D	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-D	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-D	Dibromochloromethane	UG/L	1.0		U		0.5
PW-D	Ethyl Benzene	UG/L	1.0		U		0.5
PW-D	Methylene chloride	UG/L	2.0	0.5	B	UB	0.5
PW-D	Styrene	UG/L	1.0		U		0.5
PW-D	Tetrachloroethene	UG/L	1.0		U		0.5
PW-D	Toluene	UG/L	1.0	0.1	JB	UB	0.5
PW-D	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-D	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-D	Trichloroethene	UG/L	1.0		U		0.5
PW-D	Vinyl chloride	UG/L	1.0		U		0.5
PW-D	Xylenes (total)	UG/L	5.0	0.09	JB	UB	0.5
PW-T	1,1,1-Trichloroethane	UG/L	NA		U		0.5
PW-T	1,1,2,2-Tetrachloroethane	UG/L	NA		U		0.5
PW-T	1,1,2-Trichloroethane	UG/L	NA		U		0.5
PW-T	1,1-Dichloroethane	UG/L	NA		U		0.5
PW-T	1,1-Dichloroethene	UG/L	NA		U		0.5
PW-T	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-T	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-T	1,2-Dichloroethane	UG/L	NA		U		0.5
PW-T	1,2-Dichloropropane	UG/L	NA		U		0.5
PW-T	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-T	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-T	2-Butanone	UG/L	NA		U		3
PW-T	2-Hexanone	UG/L	NA		U		3
PW-T	4-Methyl-2-pentanone	UG/L	NA		U		3
PW-T	Acetone	UG/L	NA	3	B	UB	3
PW-T	Benzene	UG/L	NA		U		0.5
PW-T	Bromodichloromethane	UG/L	NA		U		0.5
PW-T	Bromoform	UG/L	NA		U		0.5
PW-T	Bromomethane	UG/L	NA	0.1	JB	UB	0.5
PW-T	Carbon disulfide	UG/L	NA		U		0.5
PW-T	Carbon Tetrachloride	UG/L	NA		U		0.5
PW-T	Chlorobenzene	UG/L	NA		U		0.5
PW-T	Chloroethane	UG/L	NA		U		0.5
PW-T	Chloroform	UG/L	NA		U		0.5

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**Residential Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-T	Chloromethane	UG/L	NA		U		0.5
PW-T	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-T	cis-1,3-Dichloropropene	UG/L	NA		U		0.5
PW-T	Dibromochloromethane	UG/L	NA		U		0.5
PW-T	Ethyl Benzene	UG/L	NA		U		0.5
PW-T	Methylene chloride	UG/L	NA	0.5	JB	UB	0.5
PW-T	Styrene	UG/L	NA		U		0.5
PW-T	Tetrachloroethene	UG/L	NA		U		0.5
PW-T	Toluene	UG/L	NA	0.2	JB	UB	0.5
PW-T	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-T	trans-1,3-Dichloropropene	UG/L	NA		U		0.5
PW-T	Trichloroethene	UG/L	NA		U		0.5
PW-T	Vinyl chloride	UG/L	NA		U		0.5
PW-T	Xylenes (total)	UG/L	NA		U		0.5
PW-Y	1,1,1-Trichloroethane	UG/L	1.0		U		0.5
PW-Y	1,1,2,2-Tetrachloroethane	UG/L	1.0		U		0.5
PW-Y	1,1,2-Trichloroethane	UG/L	1.0		U		0.5
PW-Y	1,1-Dichloroethane	UG/L	1.0		U		0.5
PW-Y	1,1-Dichloroethene	UG/L	1.0		U		0.5
PW-Y	1,2,4-Trichlorobenzene	UG/L	NA		U		0.5
PW-Y	1,2-Dichlorobenzene	UG/L	NA		U		0.5
PW-Y	1,2-Dichloroethane	UG/L	1.0		U		0.5
PW-Y	1,2-Dichloropropane	UG/L	1.0		U		0.5
PW-Y	1,3-Dichlorobenzene	UG/L	NA		U		0.5
PW-Y	1,4-Dichlorobenzene	UG/L	NA		U		0.5
PW-Y	2-Butanone	UG/L	NA		U		3
PW-Y	2-Hexanone	UG/L	5.0		U		3
PW-Y	4-Methyl-2-pentanone	UG/L	5.0		U		3
PW-Y	Acetone	UG/L	NA	2	JB	UB	3
PW-Y	Benzene	UG/L	1.0		U		0.5
PW-Y	Bromodichloromethane	UG/L	1.0		U		0.5
PW-Y	Bromoform	UG/L	1.0		U		0.5
PW-Y	Bromomethane	UG/L	1.0		U		0.5
PW-Y	Carbon disulfide	UG/L	1.0		U		0.5
PW-Y	Carbon Tetrachloride	UG/L	1.0		U		0.5
PW-Y	Chlorobenzene	UG/L	1.0		U		0.5
PW-Y	Chloroethane	UG/L	1.0		U		0.5
PW-Y	Chloroform	UG/L	1.0		U		0.5
PW-Y	Chloromethane	UG/L	NA	0.4	J	UB	0.5
PW-Y	cis-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-Y	cis-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-Y	Dibromochloromethane	UG/L	1.0		U		0.5
PW-Y	Ethyl Benzene	UG/L	1.0		U		0.5
PW-Y	Methylene chloride	UG/L	2.0	0.6	B	UB	0.5
PW-Y	Styrene	UG/L	1.0		U		0.5
PW-Y	Tetrachloroethene	UG/L	1.0		U		0.5

**BOLD** = Exceedance

NA = Not Applicable

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**Residential Well Volatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	CurrentEvent			
				Result	LQ	DQ	Detect Limit
PW-Y	Toluene	UG/L	1.0	0.1	JB	UB	0.5
PW-Y	trans-1,2-Dichloroethene	UG/L	NA		U		0.5
PW-Y	trans-1,3-Dichloropropene	UG/L	1.0		U		0.5
PW-Y	Trichloroethene	UG/L	1.0		U		0.5
PW-Y	Vinyl chloride	UG/L	1.0		U		0.5
PW-Y	Xylenes (total)	UG/L	5.0	0.09	JB	UB	0.5

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**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-B	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-B	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-B	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-B	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-B	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-B	2,4-Dinitrophenol	UG/L	20		U		20
PW-B	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-B	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-B	2-Chloronaphthalene	UG/L	5.0		U		5
PW-B	2-Chlorophenol	UG/L	5.0		U		5
PW-B	2-Methylnaphthalene	UG/L	5.0		U		5
PW-B	2-Methylphenol	UG/L	5.0		U		5
PW-B	2-Nitroaniline	UG/L	20		U		20
PW-B	2-Nitrophenol	UG/L	5.0		U		5
PW-B	3,3'-Dichlorobenzidine	UG/L	5.0		U		5
PW-B	3-Nitroaniline	UG/L	20		U		20
PW-B	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-B	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-B	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-B	4-Chloroaniline	UG/L	5.0		U		5
PW-B	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-B	4-Methylphenol	UG/L	5.0		U		5
PW-B	4-Nitroaniline	UG/L	20		U		20
PW-B	4-Nitrophenol	UG/L	20		U		20
PW-B	Acenaphthene	UG/L	5.0		U		5
PW-B	Acenaphthylene	UG/L	5.0		U		5
PW-B	Acetophenone	UG/L	NA		U		5
PW-B	Anthracene	UG/L	5.0		U		5
PW-B	Benzo(a)anthracene	UG/L	5.0		U		5
PW-B	Benzo(a)pyrene	UG/L	5.0		U		5
PW-B	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-B	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-B	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-B	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-B	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-B	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-B	Butylbenzylphthalate	UG/L	5.0		U		5
PW-B	Chrysene	UG/L	5.0		U		5
PW-B	Dibenzo(a,h)anthracene	UG/L	5.0		U		5
PW-B	Dibenzofuran	UG/L	5.0		U		5
PW-B	Diethylphthalate	UG/L	5.0		U		5
PW-B	Dimethylphthalate	UG/L	5.0		U		5
PW-B	Di-n-butylphthalate	UG/L	5.0		U		5
PW-B	Di-n-octylphthalate	UG/L	5.0		U		5
PW-B	Fluoranthene	UG/L	5.0		U		5
PW-B	Fluorene	UG/L	5.0		U		5

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NA = Not Applicable

**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-B	Hexachlorobenzene	UG/L	5.0		U		5
PW-B	Hexachlorobutadiene	UG/L	5.0		U		5
PW-B	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-B	Hexachloroethane	UG/L	5.0		U		5
PW-B	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-B	Isophorone	UG/L	5.0		U		5
PW-B	Naphthalene	UG/L	5.0		U		5
PW-B	Nitrobenzene	UG/L	5.0		U		5
PW-B	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-B	N-Nitrosodiphenylamine	UG/L	5.0		U		5
PW-B	Pentachlorophenol	UG/L	20		U		5
PW-B	Phenanthrene	UG/L	5.0		U		5
PW-B	Phenol	UG/L	5.0		U		5
PW-B	Pyrene	UG/L	5.0		U		5
PW-C	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-C	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-C	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-C	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-C	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-C	2,4-Dinitrophenol	UG/L	20		U		20
PW-C	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-C	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-C	2-Chloronaphthalene	UG/L	5.0		U		5
PW-C	2-Chlorophenol	UG/L	5.0		U		5
PW-C	2-Methylnaphthalene	UG/L	5.0		U		5
PW-C	2-Methylphenol	UG/L	5.0		U		5
PW-C	2-Nitroaniline	UG/L	20		U		20
PW-C	2-Nitrophenol	UG/L	5.0		U		5
PW-C	3,3'-Dichlorobenzidine	UG/L	5.0		U		5
PW-C	3-Nitroaniline	UG/L	20		U		20
PW-C	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-C	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-C	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-C	4-Chloroaniline	UG/L	5.0		U		5
PW-C	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-C	4-Methylphenol	UG/L	5.0		U		5
PW-C	4-Nitroaniline	UG/L	20		U		20
PW-C	4-Nitrophenol	UG/L	20		U		20
PW-C	Acenaphthene	UG/L	5.0		U		5
PW-C	Acenaphthylene	UG/L	5.0		U		5
PW-C	Acetophenone	UG/L	NA		U		5
PW-C	Anthracene	UG/L	5.0		U		5
PW-C	Benzo(a)anthracene	UG/L	5.0		U		5
PW-C	Benzo(a)pyrene	UG/L	5.0		U		5
PW-C	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-C	Benzo(g,h,i)perylene	UG/L	5.0		U		5

**BOLD** = Exceedance

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**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-C	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-C	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-C	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-C	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5
PW-C	Butylbenzylphthalate	UG/L	5.0		U		5
PW-C	Chrysene	UG/L	5.0		U		5
PW-C	Dibenzo(a,h)anthracene	UG/L	5.0		U		5
PW-C	Dibenzofuran	UG/L	5.0		U		5
PW-C	Diethylphthalate	UG/L	5.0		U		5
PW-C	Dimethylphthalate	UG/L	5.0		U		5
PW-C	Di-n-butylphthalate	UG/L	5.0		U		5
PW-C	Di-n-octylphthalate	UG/L	5.0		U		5
PW-C	Fluoranthene	UG/L	5.0		U		5
PW-C	Fluorene	UG/L	5.0		U		5
PW-C	Hexachlorobenzene	UG/L	5.0		U		5
PW-C	Hexachlorobutadiene	UG/L	5.0		U		5
PW-C	Hexachlorocyclopentadiene	UG/L	5.0		U		5
PW-C	Hexachloroethane	UG/L	5.0		U		5
PW-C	Indeno(1,2,3-cd)pyrene	UG/L	5.0		U		5
PW-C	Isophorone	UG/L	5.0		U		5
PW-C	Naphthalene	UG/L	5.0		U		5
PW-C	Nitrobenzene	UG/L	5.0		U		5
PW-C	N-Nitroso-di-n-propylamine	UG/L	5.0		U		5
PW-C	N-Nitrosodiphenylamine	UG/L	5.0		U		5
PW-C	Pentachlorophenol	UG/L	20		U		5
PW-C	Phenanthrene	UG/L	5.0		U		5
PW-C	Phenol	UG/L	5.0		U		5
PW-C	Pyrene	UG/L	5.0		U		5
PW-D	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-D	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-D	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-D	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-D	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-D	2,4-Dinitrophenol	UG/L	20		U		20
PW-D	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-D	2,6-Dinitrotoluene	UG/L	5.0		U		5
PW-D	2-Chloronaphthalene	UG/L	5.0		U		5
PW-D	2-Chlorophenol	UG/L	5.0		U		5
PW-D	2-Methylnaphthalene	UG/L	5.0		U		5
PW-D	2-Methylphenol	UG/L	5.0		U		5
PW-D	2-Nitroaniline	UG/L	20		U		20
PW-D	2-Nitrophenol	UG/L	5.0		U		5
PW-D	3,3'-Dichlorobenzidine	UG/L	5.0		U		5
PW-D	3-Nitroaniline	UG/L	20		U		20
PW-D	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-D	4-Bromophenyl-phenylether	UG/L	5.0		U		5

**BOLD** = Exceedance

NA = Not Applicable

**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-D	4-Chloro-3-methylphenol	UG/L	5.0	U			5
PW-D	4-Chloroaniline	UG/L	5.0	U			5
PW-D	4-Chlorophenyl-phenyl ether	UG/L	5.0	U			5
PW-D	4-Methylphenol	UG/L	5.0	U			5
PW-D	4-Nitroaniline	UG/L	20	U			20
PW-D	4-Nitrophenol	UG/L	20	U			20
PW-D	Acenaphthene	UG/L	5.0	U			5
PW-D	Acenaphthylene	UG/L	5.0	U			5
PW-D	Acetophenone	UG/L	NA	U			5
PW-D	Anthracene	UG/L	5.0	U			5
PW-D	Benzo(a)anthracene	UG/L	5.0	U			5
PW-D	Benzo(a)pyrene	UG/L	5.0	U			5
PW-D	Benzo(b)fluoranthene	UG/L	5.0	U			5
PW-D	Benzo(g,h,i)perylene	UG/L	5.0	U			5
PW-D	Benzo(k)fluoranthene	UG/L	5.0	U			5
PW-D	Bis(2-chloroethoxy)methane	UG/L	5.0	U			5
PW-D	bis(2-chloroethyl) ether	UG/L	5.0	U			5
PW-D	Bis(2-ethylhexyl)phthalate	UG/L	5.0	U			5
PW-D	Butylbenzylphthalate	UG/L	5.0	U			5
PW-D	Chrysene	UG/L	5.0	U			5
PW-D	Dibenz(a,h)anthracene	UG/L	5.0	U			5
PW-D	Dibenzofuran	UG/L	5.0	U			5
PW-D	Diethylphthalate	UG/L	5.0	U			5
PW-D	Dimethylphthalate	UG/L	5.0	U			5
PW-D	Di-n-butylphthalate	UG/L	5.0	U			5
PW-D	Di-n-octylphthalate	UG/L	5.0	U			5
PW-D	Fluoranthene	UG/L	5.0	U			5
PW-D	Fluorene	UG/L	5.0	U			5
PW-D	Hexachlorobenzene	UG/L	5.0	U			5
PW-D	Hexachlorobutadiene	UG/L	5.0	U			5
PW-D	Hexachlorocyclopentadiene	UG/L	5.0	U			5
PW-D	Hexachloroethane	UG/L	5.0	U			5
PW-D	Indeno(1,2,3-cd)pyrene	UG/L	5.0	U			5
PW-D	Isophorone	UG/L	5.0	U			5
PW-D	Naphthalene	UG/L	5.0	U			5
PW-D	Nitrobenzene	UG/L	5.0	U			5
PW-D	N-Nitroso-di-n-propylamine	UG/L	5.0	U			5
PW-D	N-Nitrosodiphenylamine	UG/L	5.0	U			5
PW-D	Pentachlorophenol	UG/L	20	U			5
PW-D	Phenanthrene	UG/L	5.0	U			5
PW-D	Phenol	UG/L	5.0	U			5
PW-D	Pyrene	UG/L	5.0	U			5
PW-T	2,2'-oxybis(1-Chloropropane)	UG/L	NA	U			5
PW-T	2,4,5-Trichlorophenol	UG/L	NA	U			20
PW-T	2,4,6-Trichlorophenol	UG/L	NA	U			5
PW-T	2,4-Dichlorophenol	UG/L	NA	U			5

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**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-T	2,4-Dimethylphenol	UG/L	NA		U		5
PW-T	2,4-Dinitrophenol	UG/L	NA		U		20
PW-T	2,4-Dinitrotoluene	UG/L	NA		U		5
PW-T	2,6-Dinitrotoluene	UG/L	NA		U		5
PW-T	2-Chloronaphthalene	UG/L	NA		U		5
PW-T	2-Chlorophenol	UG/L	NA		U		5
PW-T	2-Methylnaphthalene	UG/L	NA		U		5
PW-T	2-Methylphenol	UG/L	NA		U		5
PW-T	2-Nitroaniline	UG/L	NA		U		20
PW-T	2-Nitrophenol	UG/L	NA		U		5
PW-T	3,3'-Dichlorobenzidine	UG/L	NA		U		5
PW-T	3-Nitroaniline	UG/L	NA		U		20
PW-T	4,6-Dinitro-2-methylphenol	UG/L	NA		U		20
PW-T	4-Bromophenyl-phenylether	UG/L	NA		U		5
PW-T	4-Chloro-3-methylphenol	UG/L	NA		U		5
PW-T	4-Chloroaniline	UG/L	NA		U		5
PW-T	4-Chlorophenyl-phenyl ether	UG/L	NA		U		5
PW-T	4-Methylphenol	UG/L	NA		U		5
PW-T	4-Nitroaniline	UG/L	NA		U		20
PW-T	4-Nitrophenol	UG/L	NA		U		20
PW-T	Acenaphthene	UG/L	NA		U		5
PW-T	Acenaphthylene	UG/L	NA		U		5
PW-T	Acetophenone	UG/L	NA		U		5
PW-T	Anthracene	UG/L	NA		U		5
PW-T	Benzo(a)anthracene	UG/L	NA		U		5
PW-T	Benzo(a)pyrene	UG/L	NA		U		5
PW-T	Benzo(b)fluoranthene	UG/L	NA		U		5
PW-T	Benzo(g,h,i)perylene	UG/L	NA		U		5
PW-T	Benzo(k)fluoranthene	UG/L	NA		U		5
PW-T	Bis(2-chloroethoxy)methane	UG/L	NA		U		5
PW-T	bis(2-chloroethyl) ether	UG/L	NA		U		5
PW-T	Bis(2-ethylhexyl)phthalate	UG/L	NA		U		5
PW-T	Butylbenzylphthalate	UG/L	NA		U		5
PW-T	Chrysene	UG/L	NA		U		5
PW-T	Dibenzo(a,h)anthracene	UG/L	NA		U		5
PW-T	Dibenzofuran	UG/L	NA		U		5
PW-T	Diethylphthalate	UG/L	NA		U		5
PW-T	Dimethylphthalate	UG/L	NA		U		5
PW-T	Di-n-butylphthalate	UG/L	NA		U		5
PW-T	Di-n-octylphthalate	UG/L	NA		U		5
PW-T	Fluoranthene	UG/L	NA		U		5
PW-T	Fluorene	UG/L	NA		U		5
PW-T	Hexachlorobenzene	UG/L	NA		U		5
PW-T	Hexachlorobutadiene	UG/L	NA		U		5
PW-T	Hexachlorocyclopentadiene	UG/L	NA		U		5
PW-T	Hexachloroethane	UG/L	NA		U		5

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**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-T	Indeno(1,2,3-cd)pyrene	UG/L	NA		U		5
PW-T	Isophorone	UG/L	NA		U		5
PW-T	Naphthalene	UG/L	NA		U		5
PW-T	Nitrobenzene	UG/L	NA		U		5
PW-T	N-Nitroso-di-n-propylamine	UG/L	NA		U		5
PW-T	N-Nitrosodiphenylamine	UG/L	NA		U		5
PW-T	Pentachlorophenol	UG/L	NA		U		5
PW-T	Phenanthrene	UG/L	NA		U		5
PW-T	Phenol	UG/L	NA		U		5
PW-T	Pyrene	UG/L	NA		U		5
PW-Y	2,2'-oxybis(1-Chloropropane)	UG/L	5.0		U		5
PW-Y	2,4,5-Trichlorophenol	UG/L	20		U		20
PW-Y	2,4,6-Trichlorophenol	UG/L	5.0		U		5
PW-Y	2,4-Dichlorophenol	UG/L	5.0		U		5
PW-Y	2,4-Dimethylphenol	UG/L	5.0		U		5
PW-Y	2,4-Dinitrophenol	UG/L	20		U		20
PW-Y	2,4-Dinitrotoluene	UG/L	5.0		U		5
PW-Y	2-Chloronaphthalene	UG/L	5.0		U		5
PW-Y	2-Chlorophenol	UG/L	5.0		U		5
PW-Y	2-Methylnaphthalene	UG/L	5.0		U		5
PW-Y	2-Methylphenol	UG/L	5.0		U		5
PW-Y	2-Nitroaniline	UG/L	20		U		20
PW-Y	2-Nitrophenol	UG/L	5.0		U		5
PW-Y	3,3'-Dichlorobenzidine	UG/L	5.0		U		5
PW-Y	3-Nitroaniline	UG/L	20		U		20
PW-Y	4,6-Dinitro-2-methylphenol	UG/L	20		U		20
PW-Y	4-Bromophenyl-phenylether	UG/L	5.0		U		5
PW-Y	4-Chloro-3-methylphenol	UG/L	5.0		U		5
PW-Y	4-Chloroaniline	UG/L	5.0		U		5
PW-Y	4-Chlorophenyl-phenyl ether	UG/L	5.0		U		5
PW-Y	4-Methylphenol	UG/L	5.0		U		5
PW-Y	4-Nitroaniline	UG/L	20		U		20
PW-Y	4-Nitrophenol	UG/L	20		U		20
PW-Y	Acenaphthene	UG/L	5.0		U		5
PW-Y	Acenaphthylene	UG/L	5.0		U		5
PW-Y	Acetophenone	UG/L	NA		U		5
PW-Y	Anthracene	UG/L	5.0		U		5
PW-Y	Benzo(a)anthracene	UG/L	5.0		U		5
PW-Y	Benzo(a)pyrene	UG/L	5.0		U		5
PW-Y	Benzo(b)fluoranthene	UG/L	5.0		U		5
PW-Y	Benzo(g,h,i)perylene	UG/L	5.0		U		5
PW-Y	Benzo(k)fluoranthene	UG/L	5.0		U		5
PW-Y	Bis(2-chloroethoxy)methane	UG/L	5.0		U		5
PW-Y	bis(2-chloroethyl) ether	UG/L	5.0		U		5
PW-Y	Bis(2-ethylhexyl)phthalate	UG/L	5.0		U		5

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NA = Not Applicable

**Residential Well Semivolatile Organic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-Y	Butylbenzylphthalate	UG/L	5.0	U			5
PW-Y	Chrysene	UG/L	5.0	U			5
PW-Y	Dibenzo(a,h)anthracene	UG/L	5.0	U			5
PW-Y	Dibenzofuran	UG/L	5.0	U			5
PW-Y	Diethylphthalate	UG/L	5.0	U			5
PW-Y	Dimethylphthalate	UG/L	5.0	U			5
PW-Y	Di-n-butylphthalate	UG/L	5.0	U			5
PW-Y	Di-n-octylphthalate	UG/L	5.0	U			5
PW-Y	Fluoranthene	UG/L	5.0	U			5
PW-Y	Fluorene	UG/L	5.0	U			5
PW-Y	Hexachlorobenzene	UG/L	5.0	U			5
PW-Y	Hexachlorobutadiene	UG/L	5.0	U			5
PW-Y	Hexachlorocyclopentadiene	UG/L	5.0	U			5
PW-Y	Hexachloroethane	UG/L	5.0	U			5
PW-Y	Indeno(1,2,3-cd)pyrene	UG/L	5.0	U			5
PW-Y	Isophorone	UG/L	5.0	U			5
PW-Y	Naphthalene	UG/L	5.0	U			5
PW-Y	Nitrobenzene	UG/L	5.0	U			5
PW-Y	N-Nitroso-di-n-propylamine	UG/L	5.0	U			5
PW-Y	N-Nitrosodiphenylamine	UG/L	5.0	U			5
PW-Y	Pentachlorophenol	UG/L	20	U			5
PW-Y	Phenanthrene	UG/L	5.0	U			5
PW-Y	Phenol	UG/L	5.0	U			5
PW-Y	Pyrene	UG/L	5.0	U			5

**BOLD** = Exceedance

NA = Not Applicable

**Residential Well Pesticide and PCB Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-B	4,4'-DDD	UG/L	0.02	U			0.019
PW-B	4,4'-DDE	UG/L	0.02	U			0.019
PW-B	4,4'-DDT	UG/L	0.02	U			0.019
PW-B	Aldrin	UG/L	0.01	U			0.0095
PW-B	alpha-BHC	UG/L	0.01	U			0.0095
PW-B	alpha-Chlordane	UG/L	0.01	U			0.0095
PW-B	Aroclor-1016	UG/L	0.20	U			0.19
PW-B	Aroclor-1221	UG/L	0.40	U			0.38
PW-B	Aroclor-1232	UG/L	0.20	U			0.19
PW-B	Aroclor-1242	UG/L	0.20	U			0.19
PW-B	Aroclor-1248	UG/L	0.20	U			0.19
PW-B	Aroclor-1254	UG/L	0.20	U			0.19
PW-B	Aroclor-1260	UG/L	0.20	U			0.19
PW-B	beta-BHC	UG/L	0.01	U			0.0095
PW-B	delta-BHC	UG/L	0.01	U			0.0095
PW-B	Dieldrin	UG/L	0.02	U			0.019
PW-B	Endosulfan I	UG/L	0.01	U			0.0095
PW-B	Endosulfan II	UG/L	0.02	U			0.019
PW-B	Endosulfan sulfate	UG/L	0.02	U			0.019
PW-B	Endrin	UG/L	0.02	U			0.019
PW-B	Endrin aldehyde	UG/L	0.02	U			0.019
PW-B	Endrin ketone	UG/L	0.02	U			0.019
PW-B	gamma-BHC	UG/L	0.01	U			0.0095
PW-B	gamma-Chlordane	UG/L	0.01	U			0.0095
PW-B	Heptachlor	UG/L	0.01	U			0.0095
PW-B	Heptachlor epoxide	UG/L	0.01	U			0.0095
PW-B	Methoxychlor	UG/L	0.10	U			0.095
PW-B	Toxaphene	UG/L	1.0	U			0.95
PW-C	4,4'-DDD	UG/L	0.02	U			0.02
PW-C	4,4'-DDE	UG/L	0.02	U			0.02
PW-C	4,4'-DDT	UG/L	0.02	U			0.02
PW-C	Aldrin	UG/L	0.01	U			0.01
PW-C	alpha-BHC	UG/L	0.01	U			0.01
PW-C	alpha-Chlordane	UG/L	0.01	U			0.01
PW-C	Aroclor-1016	UG/L	0.20	U			0.2
PW-C	Aroclor-1221	UG/L	0.40	U			0.4
PW-C	Aroclor-1232	UG/L	0.20	U			0.2
PW-C	Aroclor-1242	UG/L	0.20	U			0.2
PW-C	Aroclor-1248	UG/L	0.20	U			0.2
PW-C	Aroclor-1254	UG/L	0.20	U			0.2
PW-C	Aroclor-1260	UG/L	0.20	U			0.2
PW-C	beta-BHC	UG/L	0.01	U			0.01
PW-C	delta-BHC	UG/L	0.01	U			0.01
PW-C	Dieldrin	UG/L	0.02	U			0.02
PW-C	Endosulfan I	UG/L	0.01	U			0.01
PW-C	Endosulfan II	UG/L	0.02	U			0.02

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**Residential Well Pesticide and PCB Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-C	Endosulfan sulfate	UG/L	0.02	U			0.02
PW-C	Endrin	UG/L	0.02	U			0.02
PW-C	Endrin aldehyde	UG/L	0.02	U			0.02
PW-C	Endrin ketone	UG/L	0.02	U			0.02
PW-C	gamma-BHC	UG/L	0.01	U			0.01
PW-C	gamma-Chlordane	UG/L	0.01	U			0.01
PW-C	Heptachlor	UG/L	0.01	U			0.01
PW-C	Heptachlor epoxide	UG/L	0.01	U			0.01
PW-C	Methoxychlor	UG/L	0.10	U			0.1
PW-C	Toxaphene	UG/L	1.0	U			1
PW-D	4,4'-DDD	UG/L	0.02	U			0.021
PW-D	4,4'-DDE	UG/L	0.02	U			0.021
PW-D	4,4'-DDT	UG/L	0.02	U			0.021
PW-D	Aldrin	UG/L	0.01	U			0.01
PW-D	alpha-BHC	UG/L	0.01	U			0.01
PW-D	alpha-Chlordane	UG/L	0.01	U			0.01
PW-D	Aroclor-1016	UG/L	0.20	U			0.21
PW-D	Aroclor-1221	UG/L	0.40	U			0.41
PW-D	Aroclor-1232	UG/L	0.20	U			0.21
PW-D	Aroclor-1242	UG/L	0.20	U			0.21
PW-D	Aroclor-1248	UG/L	0.20	U			0.21
PW-D	Aroclor-1254	UG/L	0.20	U			0.21
PW-D	Aroclor-1260	UG/L	0.20	U			0.21
PW-D	beta-BHC	UG/L	0.01	U			0.01
PW-D	delta-BHC	UG/L	0.01	U			0.01
PW-D	Dieldrin	UG/L	0.02	U			0.021
PW-D	Endosulfan I	UG/L	0.01	U			0.01
PW-D	Endosulfan II	UG/L	0.02	U			0.021
PW-D	Endosulfan sulfate	UG/L	0.02	U			0.021
PW-D	Endrin	UG/L	0.02	U			0.021
PW-D	Endrin aldehyde	UG/L	0.02	U			0.021
PW-D	Endrin ketone	UG/L	0.02	U			0.021
PW-D	gamma-BHC	UG/L	0.01	U			0.01
PW-D	gamma-Chlordane	UG/L	0.01	U			0.01
PW-D	Heptachlor	UG/L	0.01	U			0.01
PW-D	Heptachlor epoxide	UG/L	0.01	U			0.01
PW-D	Methoxychlor	UG/L	0.10	U			0.1
PW-D	Toxaphene	UG/L	1.0	U			1
PW-T	4,4'-DDD	UG/L	NA	U			0.019
PW-T	4,4'-DDE	UG/L	NA	U			0.019
PW-T	4,4'-DDT	UG/L	NA	U			0.019
PW-T	Aldrin	UG/L	NA	U			0.0095
PW-T	alpha-BHC	UG/L	NA	U			0.0095
PW-T	alpha-Chlordane	UG/L	NA	U			0.0095
PW-T	Aroclor-1016	UG/L	NA	U			0.19
PW-T	Aroclor-1221	UG/L	NA	U			0.38

**BOLD** = Exceedance

NA = Not Applicable

**Residential Well Pesticide and PCB Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-T	Aroclor-1232	UG/L	NA		U		0.19
PW-T	Aroclor-1242	UG/L	NA		U		0.19
PW-T	Aroclor-1248	UG/L	NA		U		0.19
PW-T	Aroclor-1254	UG/L	NA		U		0.19
PW-T	Aroclor-1260	UG/L	NA		U		0.19
PW-T	beta-BHC	UG/L	NA		U		0.0095
PW-T	delta-BHC	UG/L	NA		U		0.0095
PW-T	Dieldrin	UG/L	NA		U		0.019
PW-T	Endosulfan I	UG/L	NA		U		0.0095
PW-T	Endosulfan II	UG/L	NA		U		0.019
PW-T	Endosulfan sulfate	UG/L	NA		U		0.019
PW-T	Endrin	UG/L	NA		U		0.019
PW-T	Endrin aldehyde	UG/L	NA		U		0.019
PW-T	Endrin ketone	UG/L	NA		U		0.019
PW-T	gamma-BHC	UG/L	NA		U		0.0095
PW-T	gamma-Chlordane	UG/L	NA		U		0.0095
PW-T	Heptachlor	UG/L	NA		U		0.0095
PW-T	Heptachlor epoxide	UG/L	NA		U		0.0095
PW-T	Methoxychlor	UG/L	NA		U		0.095
PW-T	Toxaphene	UG/L	NA		U		0.95
PW-Y	4,4'-DDD	UG/L	NA		U		0.02
PW-Y	4,4'-DDE	UG/L	NA		U		0.02
PW-Y	4,4'-DDT	UG/L	NA		U		0.02
PW-Y	Aldrin	UG/L	NA		U		0.01
PW-Y	alpha-BHC	UG/L	NA		U		0.01
PW-Y	alpha-Chlordane	UG/L	NA		U		0.01
PW-Y	Aroclor-1016	UG/L	NA		U		0.2
PW-Y	Aroclor-1221	UG/L	NA		U		0.4
PW-Y	Aroclor-1232	UG/L	NA		U		0.2
PW-Y	Aroclor-1242	UG/L	NA		U		0.2
PW-Y	Aroclor-1248	UG/L	NA		U		0.2
PW-Y	Aroclor-1254	UG/L	NA		U		0.2
PW-Y	Aroclor-1260	UG/L	NA		U		0.2
PW-Y	beta-BHC	UG/L	NA		U		0.01
PW-Y	delta-BHC	UG/L	NA		U		0.01
PW-Y	Dieldrin	UG/L	NA		U		0.02
PW-Y	Endosulfan I	UG/L	NA		U		0.01
PW-Y	Endosulfan II	UG/L	NA		U		0.02
PW-Y	Endosulfan sulfate	UG/L	NA		U		0.02
PW-Y	Endrin	UG/L	NA		U		0.02
PW-Y	Endrin aldehyde	UG/L	NA		U		0.02
PW-Y	Endrin ketone	UG/L	NA		U		0.02
PW-Y	gamma-BHC	UG/L	NA		U		0.01
PW-Y	gamma-Chlordane	UG/L	NA		U		0.01
PW-Y	Heptachlor	UG/L	NA		U		0.01
PW-Y	Heptachlor epoxide	UG/L	NA		U		0.01

**BOLD** = Exceedance

NA = Not Applicable

**Residential Well Pesticide and PCB Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-Y	Methoxychlor	UG/L	NA		U		0.1
PW-Y	Toxaphene	UG/L	NA		U		1

**BOLD** = Exceedance

NA = Not Applicable

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**Residential Well Inorganic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-B	Aluminum	UG/L	19		U		7.6
PW-B	Antimony	UG/L	1.0	<b>3.4</b>	J	UB	10
PW-B	Arsenic	UG/L	2.0		U		2.5
PW-B	Barium	UG/L	121	<b>131</b>		B	10
PW-B	Beryllium	UG/L	1.0		U		0.2
PW-B	Cadmium	UG/L	1.0		U		0.4
PW-B	Calcium	UG/L	91,200	87,300			1,000
PW-B	Chromium (Total)	UG/L	1.0	0.65	J	UB	5
PW-B	Cobalt	UG/L	1.0		U		0.4
PW-B	Copper	UG/L	2.3		U		0.8
PW-B	Cyanide (Total)	UG/L	10		U		1.5
PW-B	Iron	UG/L	2,170	<b>2,820</b>			100
PW-B	Lead	UG/L	1.0		U		1.3
PW-B	Magnesium	UG/L	42,700	41,200		B	1,000
PW-B	Manganese	UG/L	56	<b>57.7</b>			10
PW-B	Mercury	UG/L	0.20		U		0.1
PW-B	Nickel	UG/L	3.3		U		0.6
PW-B	Potassium	UG/L	1,760	<b>2,270</b>		B	1,000
PW-B	Selenium	UG/L	2.0		U		1.7
PW-B	Silver	UG/L	1.0		U		0.5
PW-B	Sodium	UG/L	14,200	<b>15,900</b>	E		2,000
PW-B	Thallium	UG/L	3.0		U		4.2
PW-B	Vanadium	UG/L	1.0		U		0.3
PW-B	Zinc	UG/L	9.6	<b>12.4</b>	J	B	20
PW-C	Aluminum	UG/L	25		U		7.6
PW-C	Antimony	UG/L	1.0	<b>3.4</b>	J	UB	10
PW-C	Arsenic	UG/L	2.0		U		2.5
PW-C	Barium	UG/L	166	157		B	10
PW-C	Beryllium	UG/L	1.0		U		0.2
PW-C	Cadmium	UG/L	1.0		U		0.4
PW-C	Calcium	UG/L	93,200	84,700			1,000
PW-C	Chromium (Total)	UG/L	1.0	0.49	J	UB	5
PW-C	Cobalt	UG/L	1.0		U		0.4
PW-C	Copper	UG/L	32		U		0.8
PW-C	Cyanide (Total)	UG/L	10		U		1.5
PW-C	Iron	UG/L	3,030	2,350			100
PW-C	Lead	UG/L	1.9		U		1.3
PW-C	Magnesium	UG/L	53,700	48,100		B	1,000
PW-C	Manganese	UG/L	35	33.3			10
PW-C	Mercury	UG/L	0.20		U		0.1
PW-C	Nickel	UG/L	1.0		U		0.6
PW-C	Potassium	UG/L	2,730	<b>2,840</b>		B	1,000
PW-C	Selenium	UG/L	2.0		U		1.7
PW-C	Silver	UG/L	1.0		U		0.5
PW-C	Sodium	UG/L	23,300	17,300	E		2,000

**BOLD** = Exceedance

NA = Not Applicable

**Residential Well Inorganic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-C	Thallium	UG/L	3.0		U		4.2
PW-C	Vanadium	UG/L	1.0		U		0.3
PW-C	Zinc	UG/L	79	5.5	J	UB	20
PW-D	Aluminum	UG/L	125		U		7.6
PW-D	Antimony	UG/L	1.0	3	J	UB	10
PW-D	Arsenic	UG/L	2.0		U		2.5
PW-D	Barium	UG/L	157	152		B	10
PW-D	Beryllium	UG/L	1.0		U		0.2
PW-D	Cadmium	UG/L	1.1		U		0.4
PW-D	Calcium	UG/L	96,800	89,800			1,000
PW-D	Chromium (Total)	UG/L	1.0	1.2	J	UB	5
PW-D	Cobalt	UG/L	1.0		U		0.4
PW-D	Copper	UG/L	155	1.7	J	UB	5
PW-D	Cyanide (Total)	UG/L	10		U		1.5
PW-D	Iron	UG/L	3,190	2,250			100
PW-D	Lead	UG/L	23	1.8	J		3
PW-D	Magnesium	UG/L	50,900	47,400		B	1,000
PW-D	Manganese	UG/L	48	30.4			10
PW-D	Mercury	UG/L	0.20		U		0.1
PW-D	Nickel	UG/L	4.3		U		0.6
PW-D	Potassium	UG/L	2,660	2,960		B	1,000
PW-D	Selenium	UG/L	2.0		U		1.7
PW-D	Silver	UG/L	1.0		U		0.5
PW-D	Sodium	UG/L	24,100	17,100	E		2,000
PW-D	Thallium	UG/L	3.0		U		4.2
PW-D	Vanadium	UG/L	1.0		U		0.3
PW-D	Zinc	UG/L	1,580	14.7	J	B	20
PW-T	Aluminum	UG/L			U		7.6
PW-T	Antimony	UG/L		3.1	J	UB	10
PW-T	Arsenic	UG/L			U		2.5
PW-T	Barium	UG/L		152		B	10
PW-T	Beryllium	UG/L			U		0.2
PW-T	Cadmium	UG/L			U		0.4
PW-T	Calcium	UG/L		90,000			1,000
PW-T	Chromium (Total)	UG/L			U		0.4
PW-T	Cobalt	UG/L			U		0.4
PW-T	Copper	UG/L		4.4	J	UB	5
PW-T	Cyanide (Total)	UG/L			U		1.5
PW-T	Iron	UG/L		2,360			100
PW-T	Lead	UG/L			U		1.3
PW-T	Magnesium	UG/L		49,100		B	1,000
PW-T	Manganese	UG/L		32.6			10
PW-T	Mercury	UG/L			U		0.1
PW-T	Nickel	UG/L			U		0.6
PW-T	Potassium	UG/L		3,110		B	1,000

**BOLD** = Exceedance

NA = Not Applicable

**Residential Well Inorganic Results - September 2002**  
**Comparison to Maximum Baseline Detections**  
**American Chemical Services NPL Site**  
**Griffith, Indiana**

Well	Analyte	Units	Highest Detect during Baseline	Current Event			
				Result	LQ	DQ	Detect Limit
PW-T	Selenium	UG/L			U		1.7
PW-T	Silver	UG/L			U		0.5
PW-T	Sodium	UG/L		19,600	E		2,000
PW-T	Thallium	UG/L			U		4.2
PW-T	Vanadium	UG/L			U		0.3
PW-T	Zinc	UG/L		33.4		B	20
PW-Y	Aluminum	UG/L	10	8.1	J	UB	100
PW-Y	Antimony	UG/L	1.0		U		1.7
PW-Y	Arsenic	UG/L	2.0		U		2.5
PW-Y	Barium	UG/L	132	152		B	10
PW-Y	Beryllium	UG/L	1.0		U		0.2
PW-Y	Cadmium	UG/L	1.0		U		0.4
PW-Y	Calcium	UG/L	81,750	85,600			1,000
PW-Y	Chromium (Total)	UG/L	2.4		U		0.4
PW-Y	Cobalt	UG/L	1.0		U		0.4
PW-Y	Copper	UG/L	2.0	1.1	J	UB	5
PW-Y	Cyanide (Total)	UG/L	10		U		1.5
PW-Y	Iron	UG/L	2,550	3,480			100
PW-Y	Lead	UG/L	1.0		U		1.3
PW-Y	Magnesium	UG/L	43,100	46,400		B	1,000
PW-Y	Manganese	UG/L	29	35.4			10
PW-Y	Mercury	UG/L	0.20		U		0.1
PW-Y	Nickel	UG/L	3.4		U		0.6
PW-Y	Potassium	UG/L	2,765	3,290		B	1,000
PW-Y	Selenium	UG/L	2.1		U		1.7
PW-Y	Silver	UG/L	1.0		U		0.5
PW-Y	Sodium	UG/L	23,300	23,100	E		2,000
PW-Y	Thallium	UG/L	2.3		U		4.2
PW-Y	Vanadium	UG/L	1.0		U		0.3
PW-Y	Zinc	UG/L	25	13.4	J	B	20

**BOLD** = Exceedance

NA = Not Applicable

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## **Appendix B**

### **Concentration Vs. Time Plots**

#### **Upper Aquifer Monitoring Wells**

MW06  
MW11  
MW14  
MW15  
MW17  
MW19  
MW42  
MW43  
MW44  
MW45  
MW48  
MW49

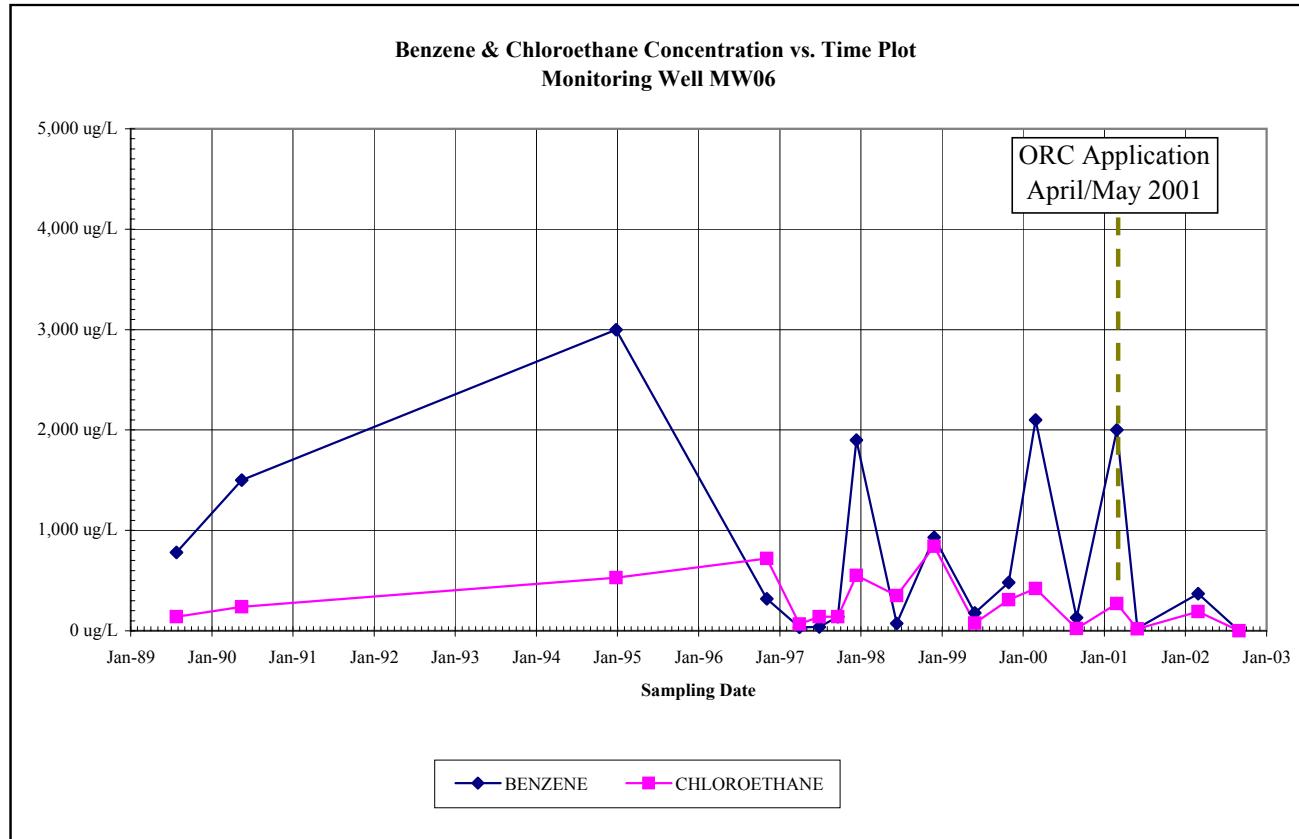
#### **Lower Aquifer Monitoring Wells**

MW08  
MW09R  
MW10C  
MW23  
MW28  
MW29  
MW30  
MW31  
MW32  
MW33  
MW51  
MW52  
MW53  
MW54R  
MW55  
MW56

## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW06

DATE	BENZENE	CHLOROETHANE
BASELINE	320	720
August-89	780 ug/L	140 ug/L
May-90	1,500 ug/L	240 ug/L
December-94	3,000 ug/L	530 ug/L
November-96	320 ug/L	720 ug/L
April-97	35 ug/L	67 ug/L
July-97	39 ug/L	140 ug/L
September-97	140 ug/L	140 ug/L
December-97	1,900 ug/L	550 ug/L
June-98	72 ug/L	350 ug/L
December-98	930 ug/L	840 ug/L
June-99	180 ug/L	78 ug/L
November-99	480 ug/L	310 ug/L
March-00	2,100 ug/L	420 ug/L
September-00	130 ug/L	22 ug/L
March-01	2,000 ug/L	270 ug/L
June-01	26 ug/L	18 ug/L
March-02	370 ug/L	190 ug/L
September-02	BDL	BDL

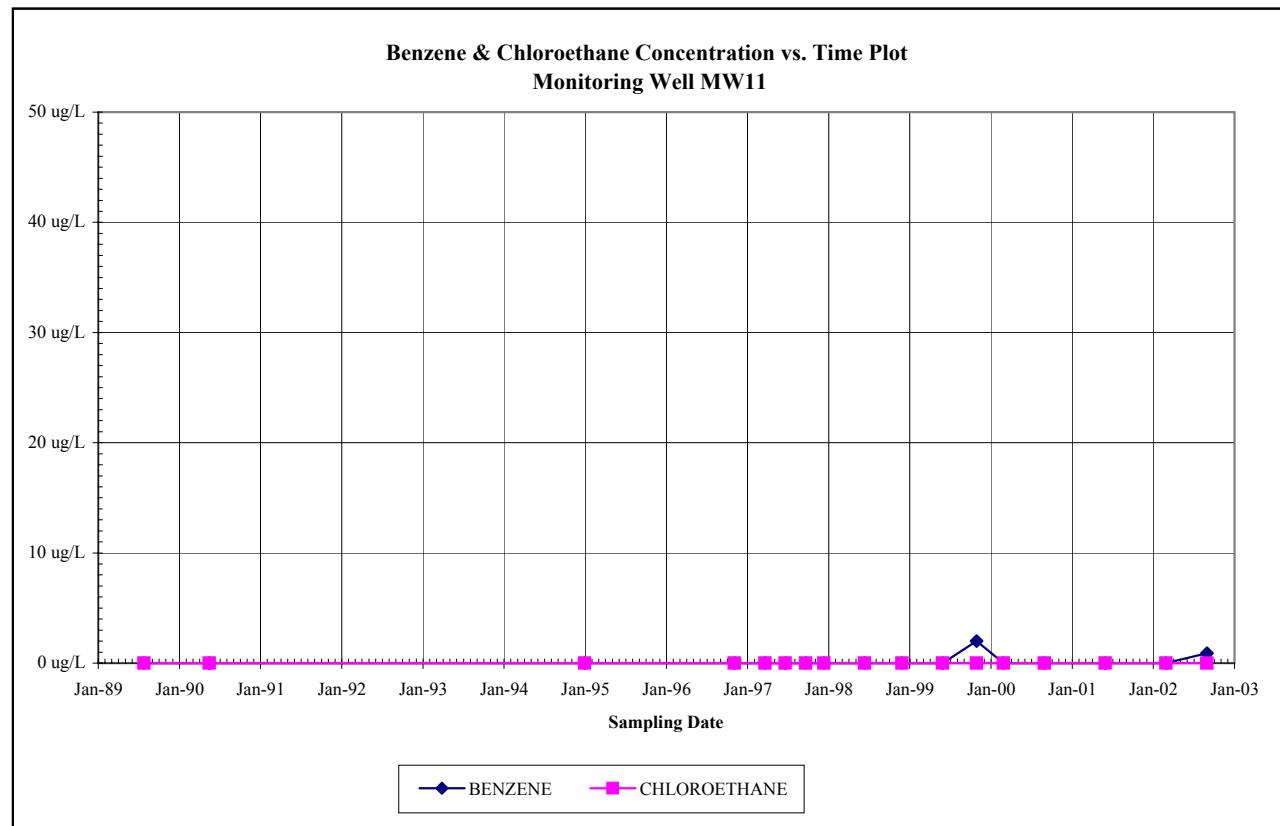
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Upper Aquifer Monitoring Well MW11**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89	BDL	BDL
May-90	BDL	BDL
January-95	BDL	BDL
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	2 ug/L	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	0.9	BDL

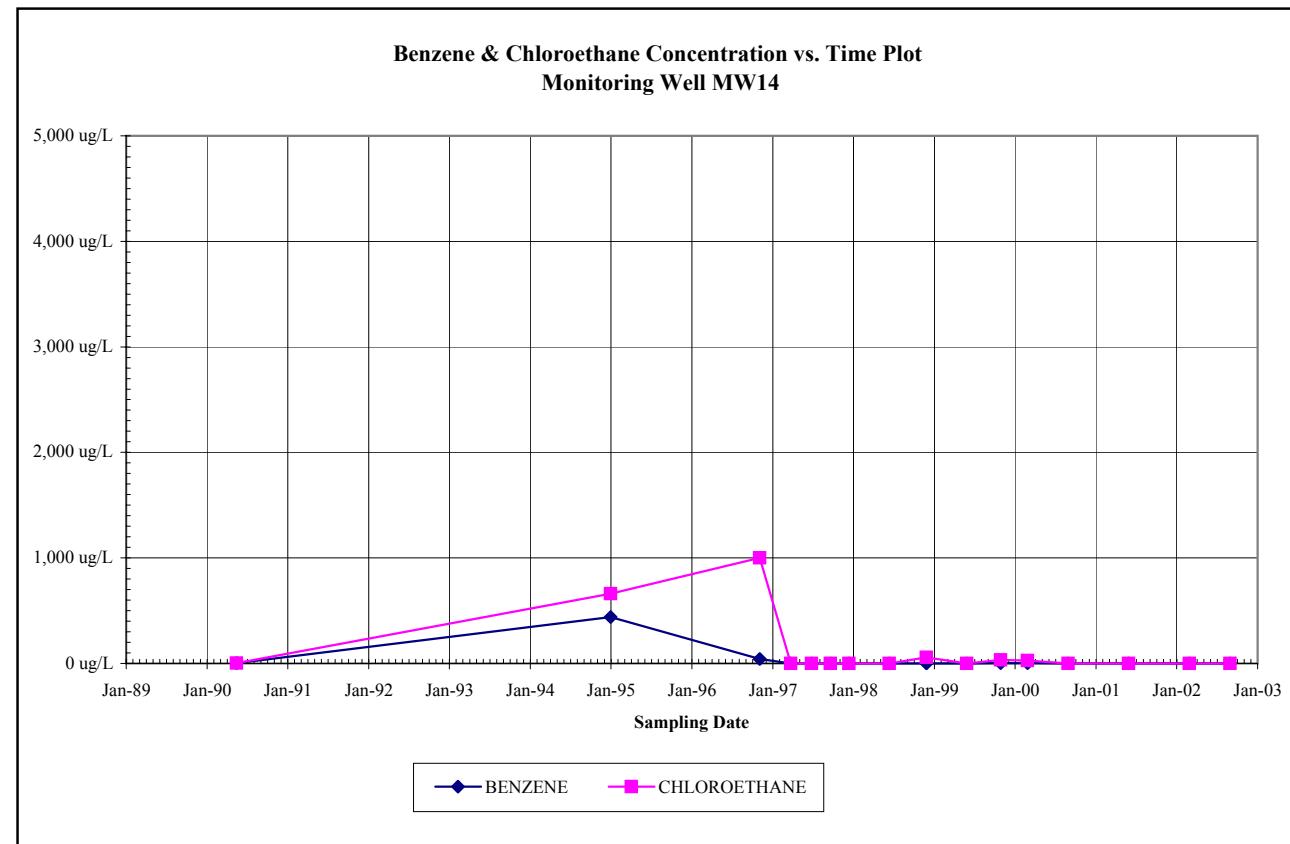
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW14

DATE	BENZENE	CHLOROETHANE
BASELINE	41	1000
August-89		
May-90	2 ug/L	3 ug/L
January-95	440 ug/L	660 ug/L
November-96	41 ug/L	1,000 ug/L
March-97	BDL	BDL
June-97	1 ug/L	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	59 ug/L
June-99	BDL	BDL
November-99	2 ug/L	32 ug/L
March-00	2 ug/L	26 ug/L
September-00	BDL	BDL
June-01	BDL	BDL
March-02	1 ug/L	BDL
September-02	BDL	BDL

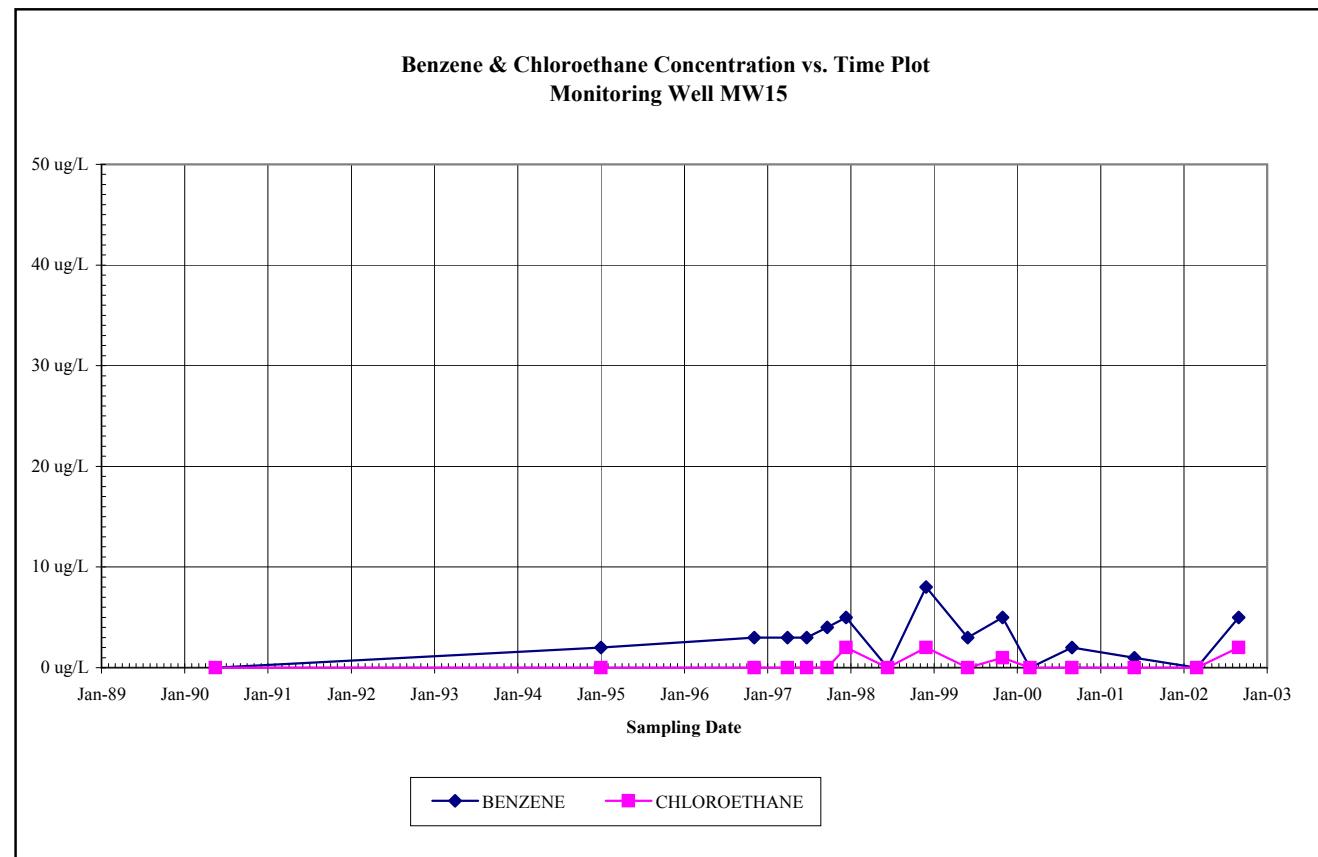
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Upper Aquifer Monitoring Well MW15**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90	BDL	BDL
January-95	2 ug/L	BDL
November-96	3 ug/L	BDL
April-97	3 ug/L	BDL
June-97	3 ug/L	BDL
September-97	4 ug/L	BDL
December-97	5 ug/L	2 ug/L
June-98	BDL	BDL
December-98	8 ug/L	2 ug/L
June-99	3 ug/L	BDL
November-99	5 ug/L	1 ug/L
March-00	BDL	BDL
September-00	2	BDL
June-01	1	BDL
March-02	BDL	BDL
September-02	5	2

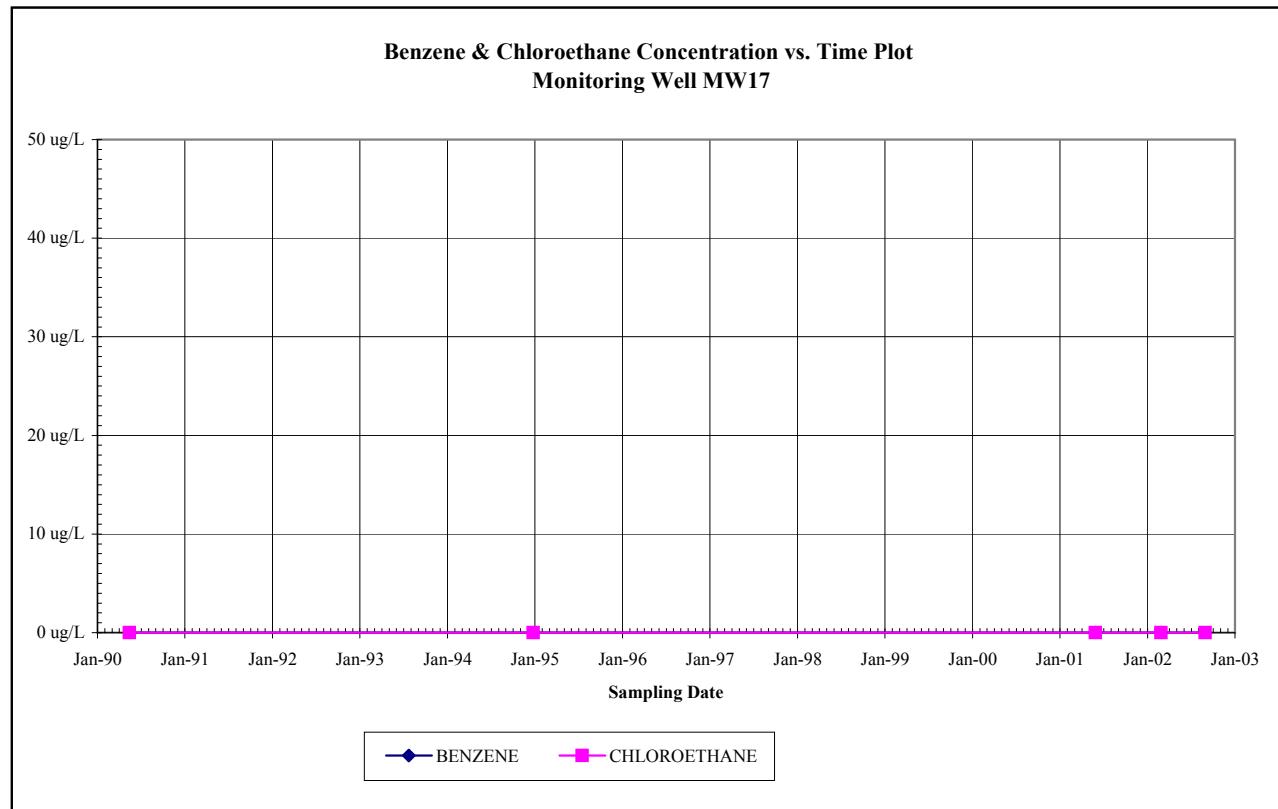
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW17

**BDL = Below the Detection Limit**

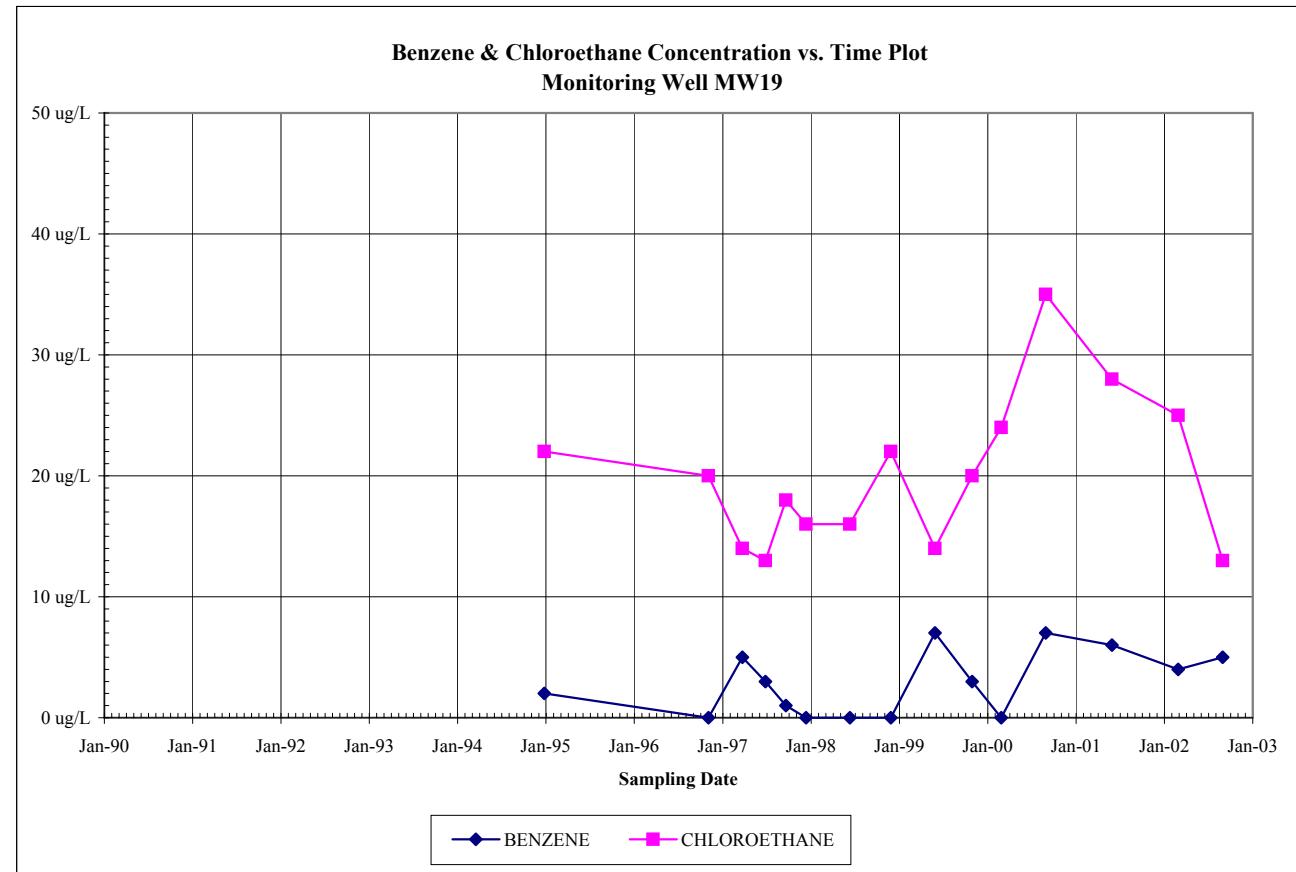
Baseline values adopted from nearby abandoned well MW18



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW19

DATE	BENZENE	CHLOROETHANE
BASELINE	10	20
August-89		
May-90		
December-94	2 ug/L	22 ug/L
November-96	BDL	20 ug/L
March-97	5 ug/L	14 ug/L
June-97	3 ug/L	13 ug/L
September-97	1 ug/L	18 ug/L
December-97	BDL	16 ug/L
June-98	BDL	16 ug/L
December-98	BDL	22 ug/L
June-99	7 ug/L	14 ug/L
November-99	3 ug/L	20 ug/L
March-00	BDL	24 ug/L
September-00	7	35 ug/L
June-01	6	28 ug/L
March-02	4	25 ug/L
September-02	5	13 ug/L

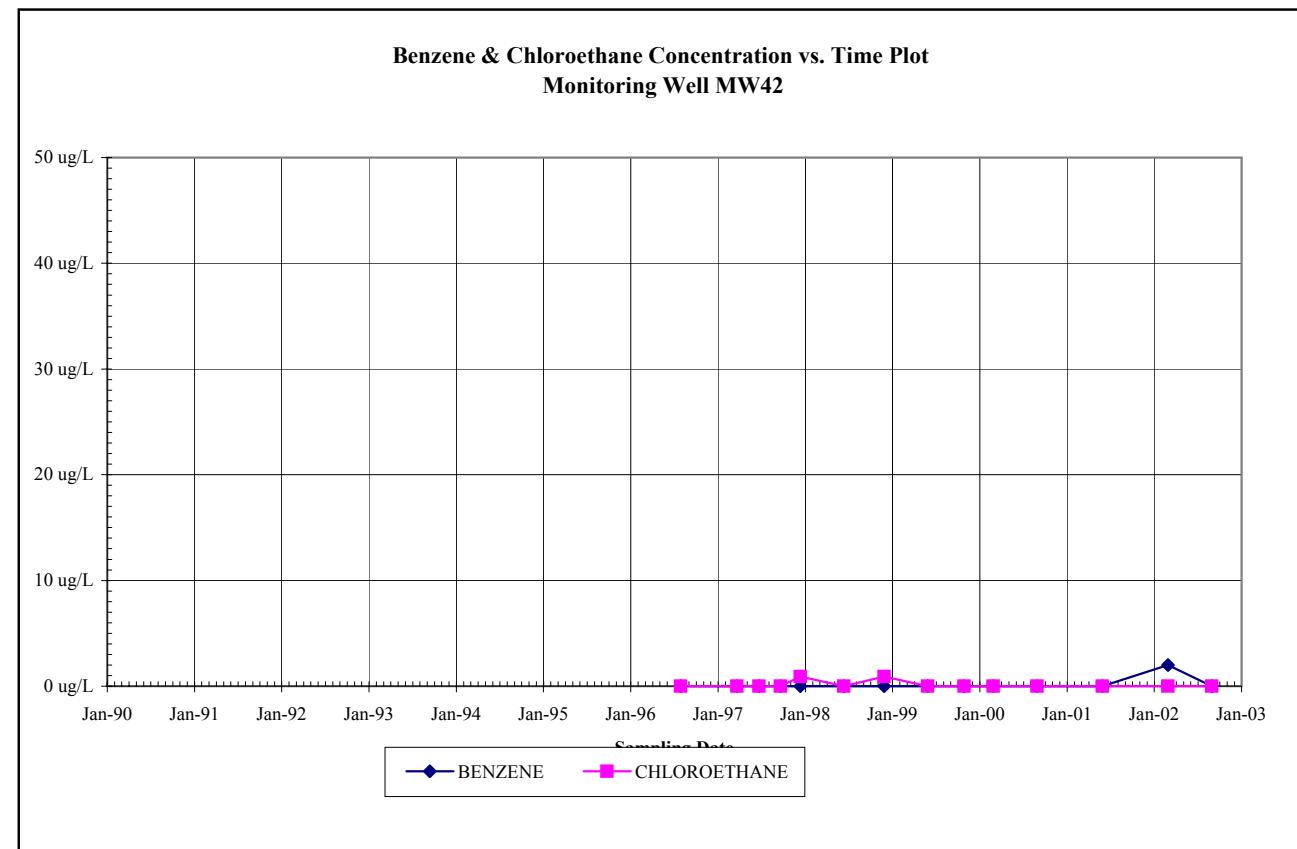
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW42

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
December-94		
August-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	0.9 ug/L
June-98	BDL	BDL
December-98	BDL	0.9 ug/L
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	2	BDL
September-02	BDL	BDL

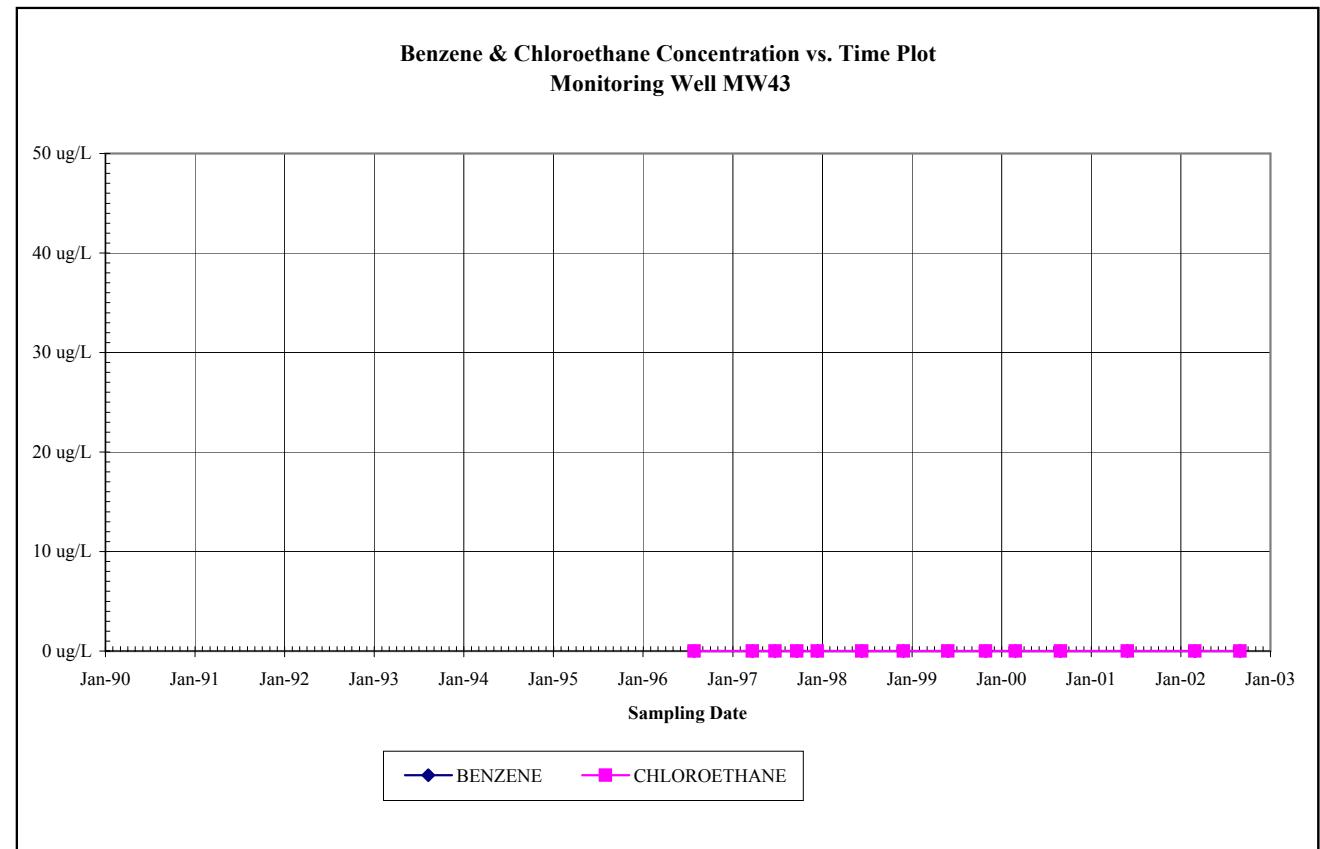
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW43

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
December-94		
August-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

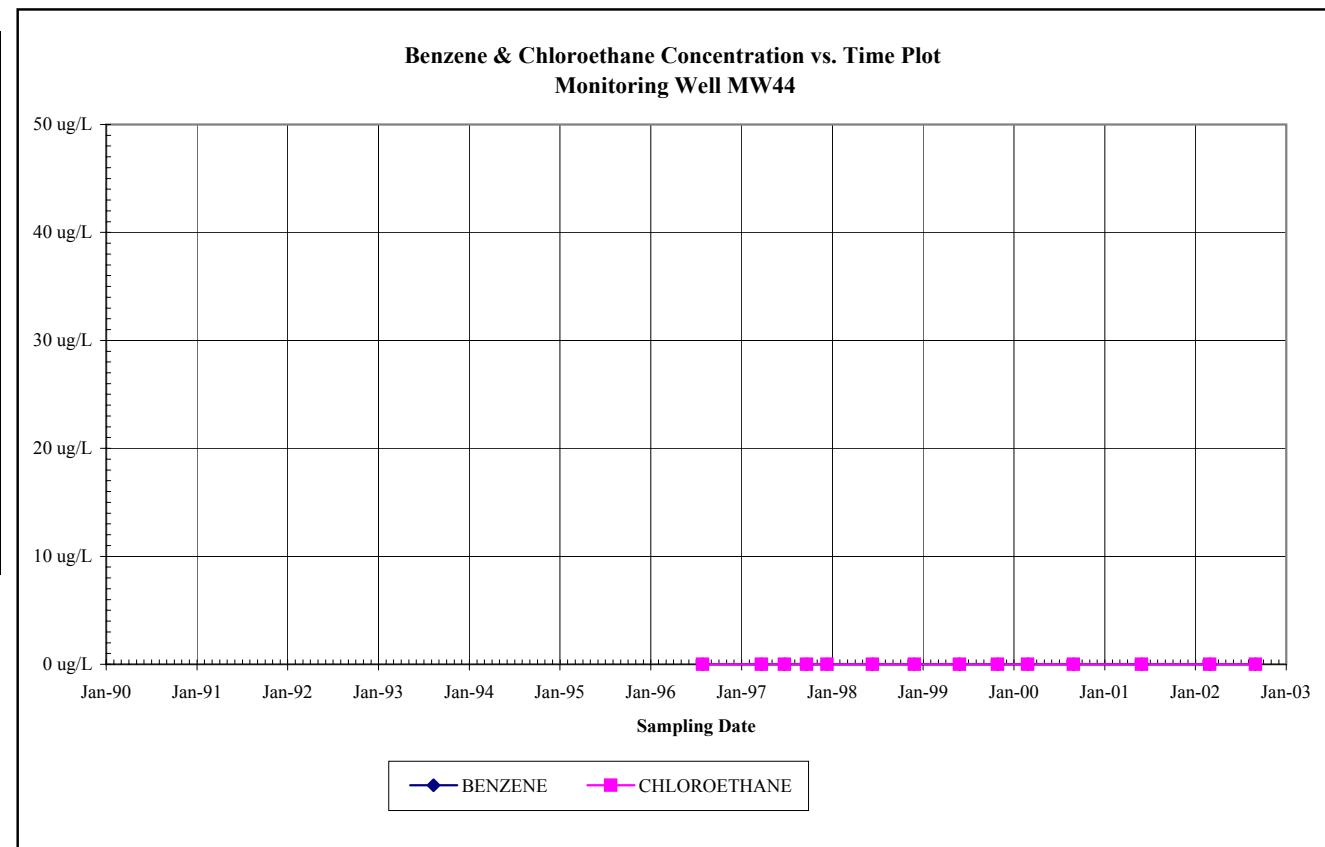
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW44

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
December-94		
August-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

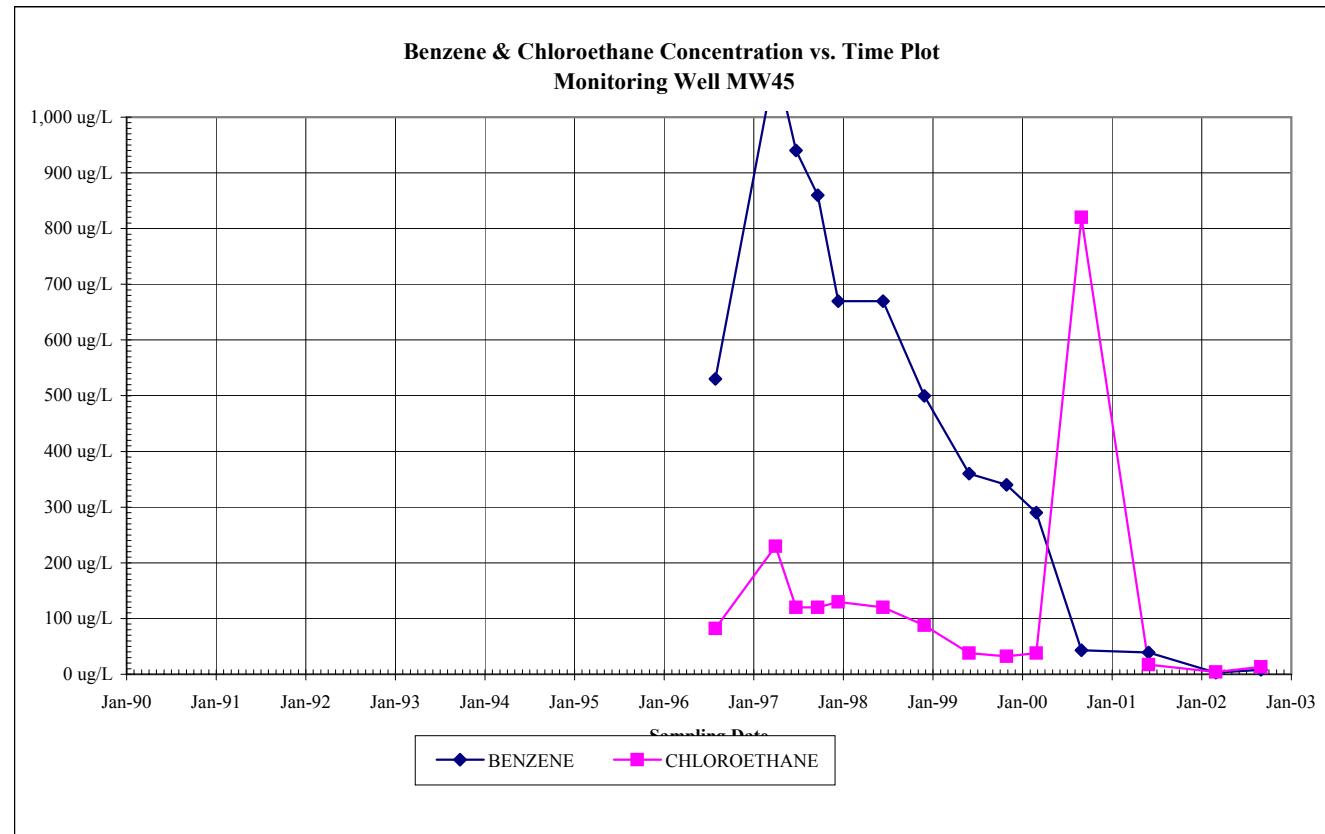
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW45

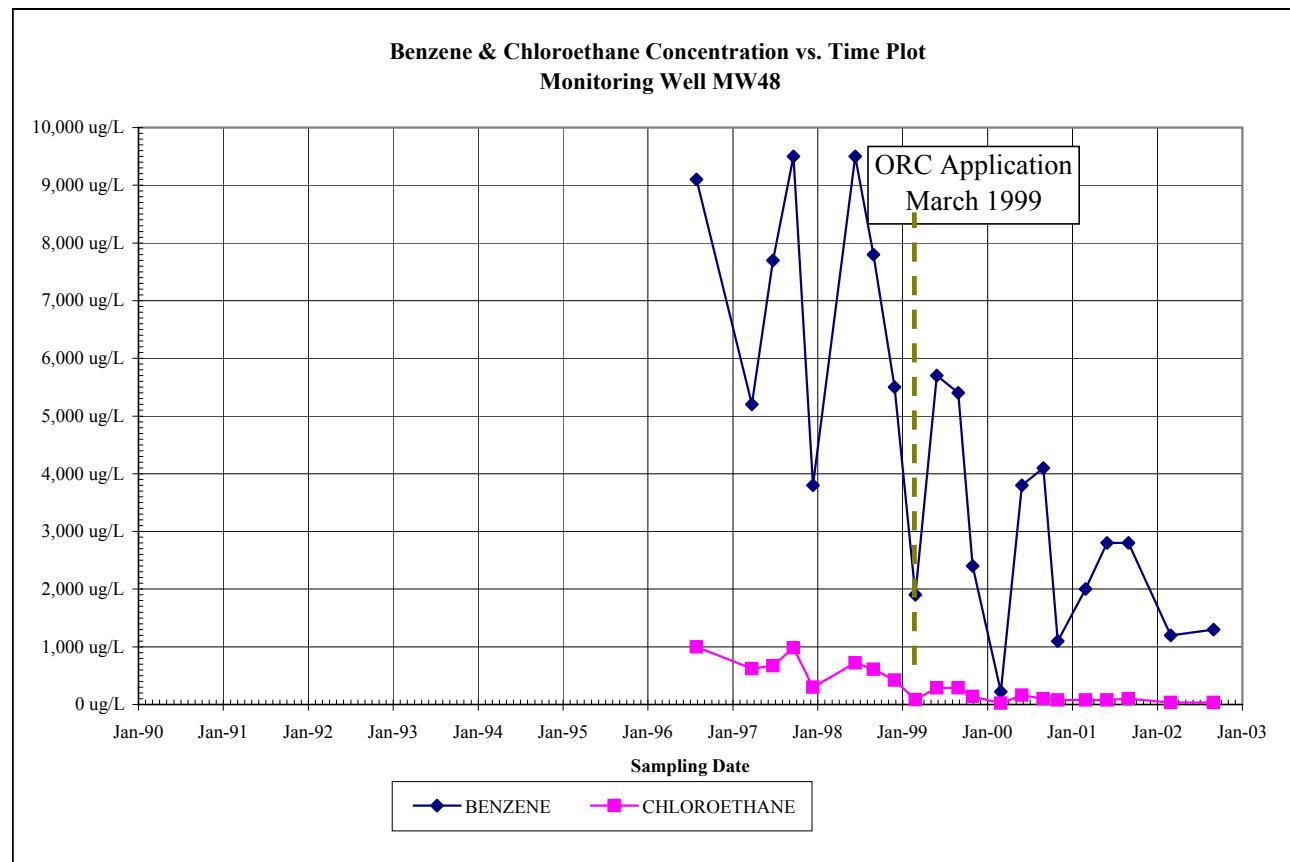
DATE	BENZENE	CHLOROETHANE
BASELINE	1045	215
August-89		
May-90		
December-94		
August-96	530 ug/L	82 ug/L
April-97	1,100 ug/L	230 ug/L
June-97	940 ug/L	120 ug/L
September-97	860 ug/L	120 ug/L
December-97	670 ug/L	130 ug/L
June-98	670 ug/L	120 ug/L
December-98	500 ug/L	88 ug/L
June-99	360 ug/L	38 ug/L
November-99	340 ug/L	32 ug/L
March-00	290 ug/L	38 ug/L
September-00	43 ug/L	820 ug/L
June-01	39 ug/L	17 ug/L
March-02	3 ug/L	4 ug/L
September-02	8 ug/L	13 ug/L

BDL = Below the Detection Limit



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW48

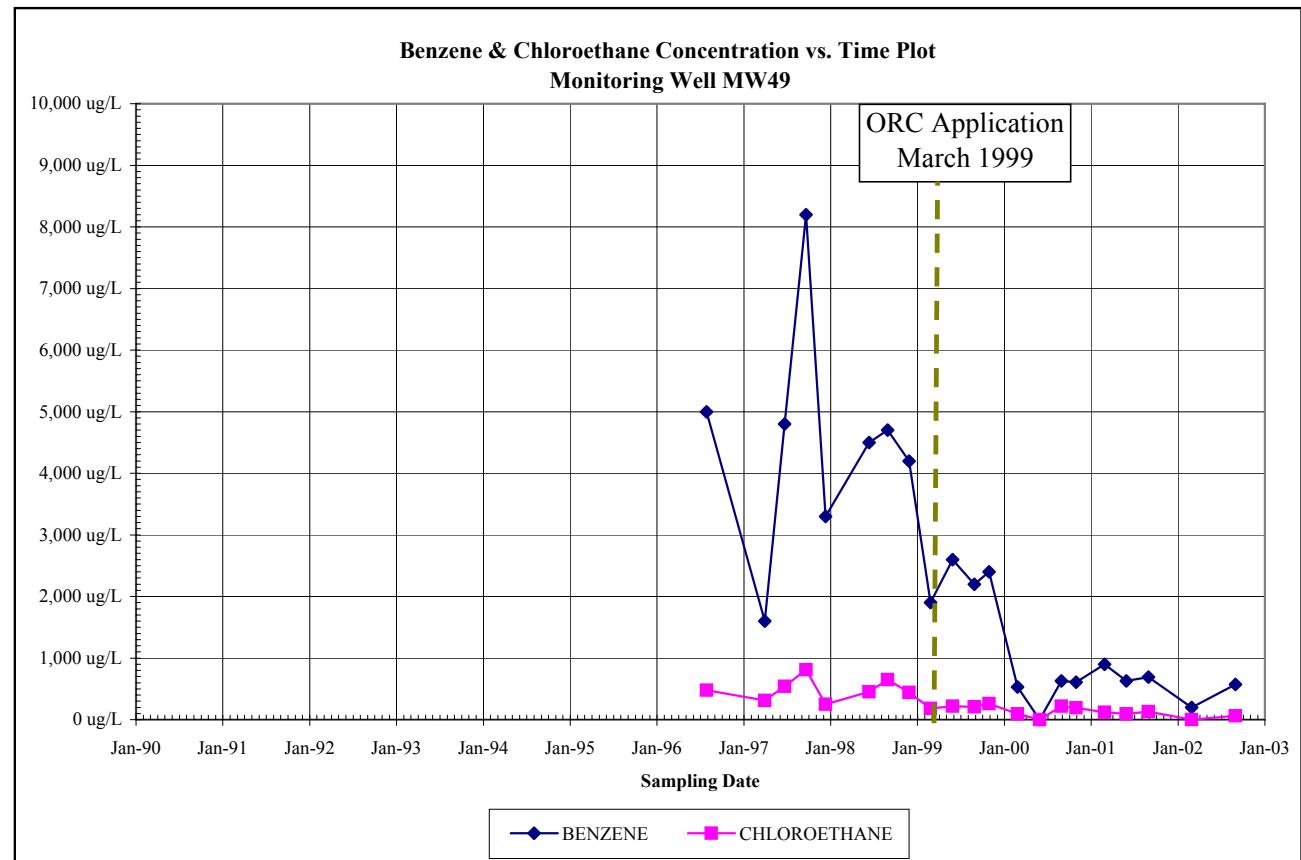
DATE	BENZENE	CHLOROETHANE
BASELINE	9500	1000
August-89		
May-90		
December-94		
August-96	9,100 ug/L	1,000 ug/L
March-97	5,200 ug/L	620 ug/L
June-97	7,700 ug/L	670 ug/L
September-97	9,500 ug/L	980 ug/L
December-97	3,800 ug/L	300 ug/L
June-98	9,500 ug/L	720 ug/L
September-98	7,800 ug/L	610 ug/L
December-98	5,500 ug/L	420 ug/L
March-99	1,900 ug/L	83 ug/L
June-99	5,700 ug/L	290 ug/L
September-99	5,400 ug/L	290 ug/L
November-99	2,400 ug/L	140 ug/L
March-00	220 ug/L	24 ug/L
June-00	3,800 ug/L	160 ug/L
September-00	4,100 ug/L	100 ug/L
November-00	1,100 ug/L	78 ug/L
March-01	2,000 ug/L	78 ug/L
June-01	2,800 ug/L	80 ug/L
September-01	2,800 ug/L	100 ug/L
March-02	1,200 ug/L	33 ug/L
September-02	1,300 ug/L	32 ug/L



## Concentration vs. Time Plot for Upper Aquifer Monitoring Well MW49

DATE	BENZENE	CHLOROETHANE
BASELINE	6750	715
August-89		
May-90		
December-94		
August-96	5,000 ug/L	480 ug/L
April-97	1,600 ug/L	310 ug/L
June-97	4,800 ug/L	540 ug/L
September-97	8,200 ug/L	810 ug/L
December-97	3,300 ug/L	250 ug/L
June-98	4,500 ug/L	450 ug/L
September-98	4,700 ug/L	650 ug/L
December-98	4,200 ug/L	440 ug/L
March-99	1,900 ug/L	180 ug/L
June-99	2,600 ug/L	220 ug/L
September-99	2,200 ug/L	210 ug/L
November-99	2,400 ug/L	260 ug/L
March-00	530 ug/L	91 ug/L
June-00	BDL	BDL
September-00	630 ug/L	220 ug/L
November-00	610 ug/L	190 ug/L
March-01	900 ug/L	120 ug/L
June-01	630 ug/L	91 ug/L
September-01	690 ug/L	130 ug/L
March-02	200 ug/L	BDL
September-02	570 ug/L	60 ug/L

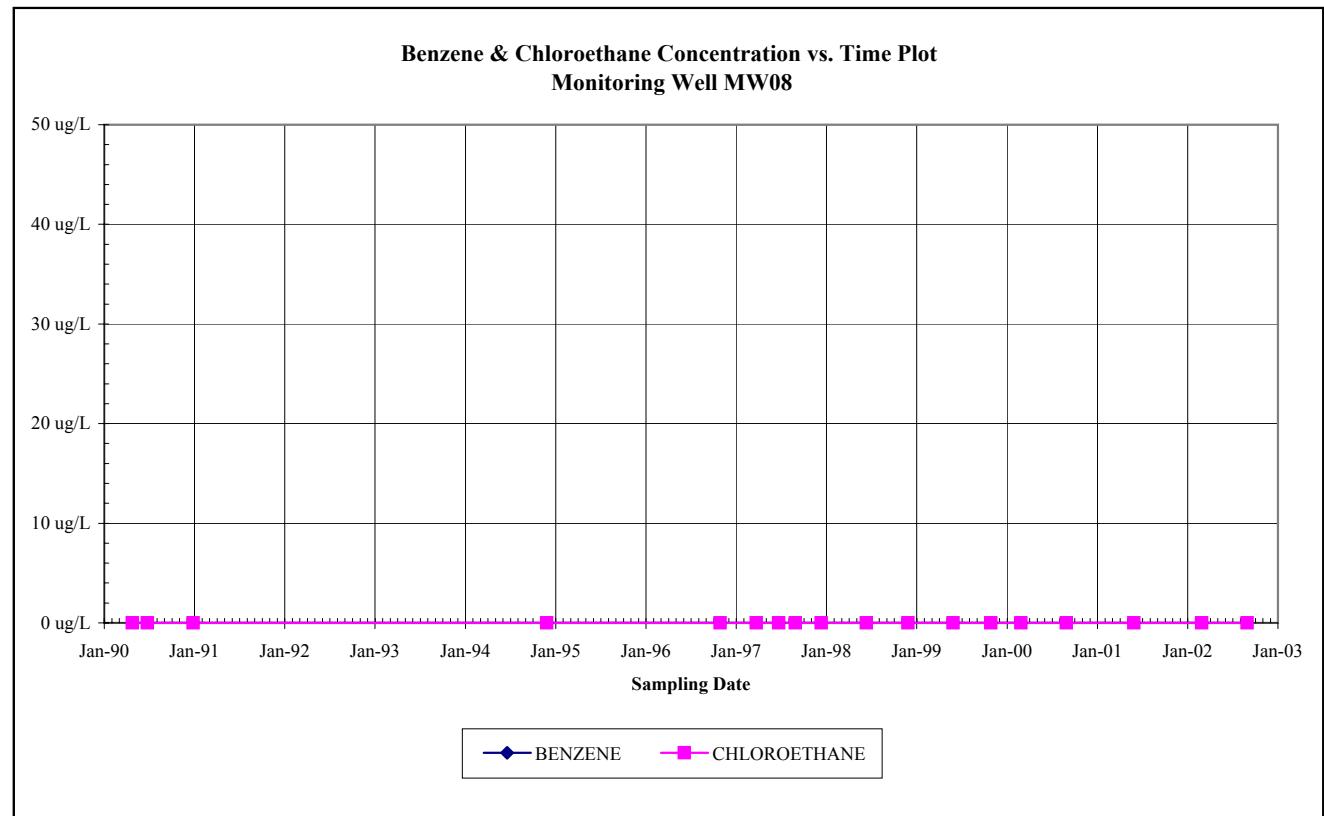
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW08

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
May-90	BDL	BDL
July-90	BDL	BDL
January-91	BDL	BDL
December-94	BDL	BDL
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

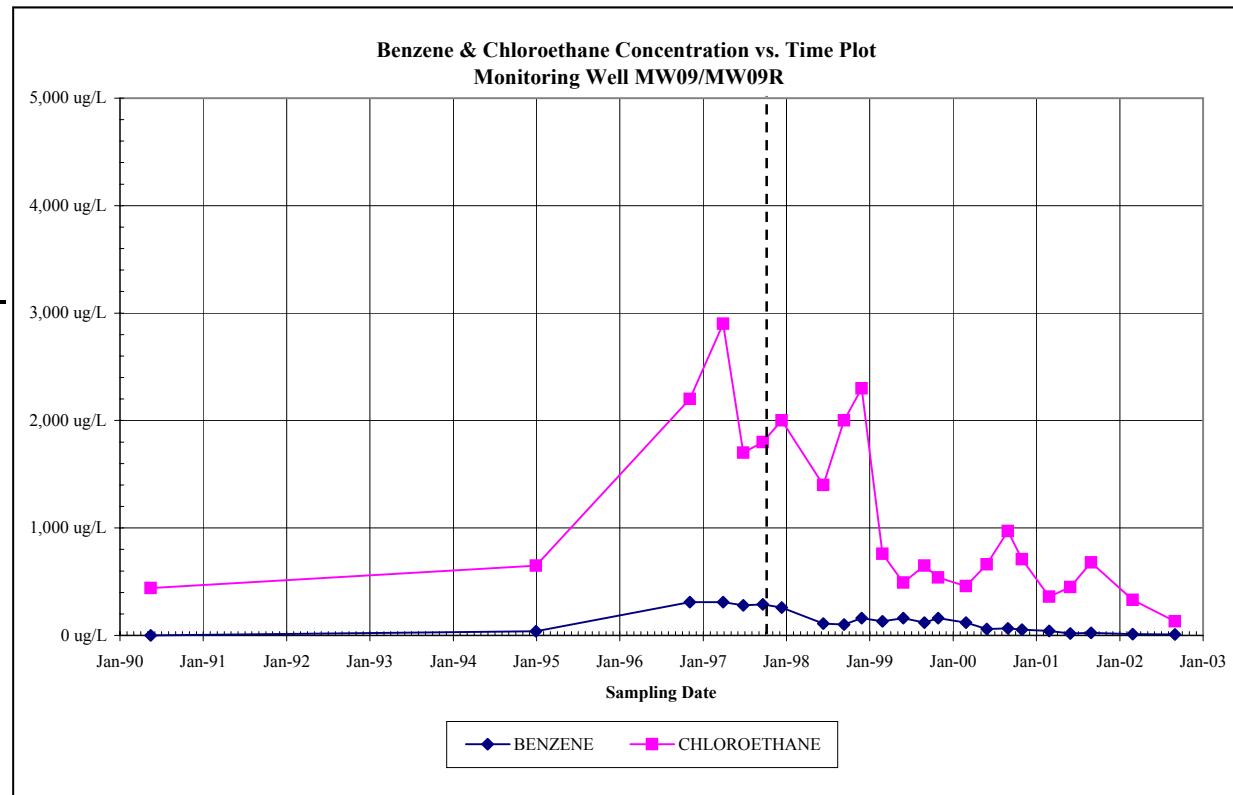
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW09/MW09R**

DATE	BENZENE	CHLOROETHANE
<b>BASELINE</b>	<b>310</b>	<b>2900</b>
August-89		
May-90	BDL	440 ug/L
January-95	40 ug/L	650 ug/L
November-96	310 ug/L	2,200 ug/L
April-97	310 ug/L	2,900 ug/L
June-97	280 ug/L	1,700 ug/L
September-97	290 ug/L	1,800 ug/L
December-97	260 ug/L	2,000 ug/L
June-98	110 ug/L	1,400 ug/L
September-98	100 ug/L	2,000 ug/L
December-98	160 ug/L	2,300 ug/L
March-99	130 ug/L	760 ug/L
June-99	160 ug/L	490 ug/L
September-99	120 ug/L	650 ug/L
November-99	160 ug/L	540 ug/L
March-00	120 ug/L	460 ug/L
June-00	60 ug/L	660 ug/L
September-00	65 ug/L	970 ug/L
November-00	55 ug/L	710 ug/L
March-01	41 ug/L	360 ug/L
June-01	19 ug/L	450 ug/L
September-01	23 ug/L	680 ug/L
March-02	11 ug/L	330 ug/L
September-02	9 ug/L	130 ug/L

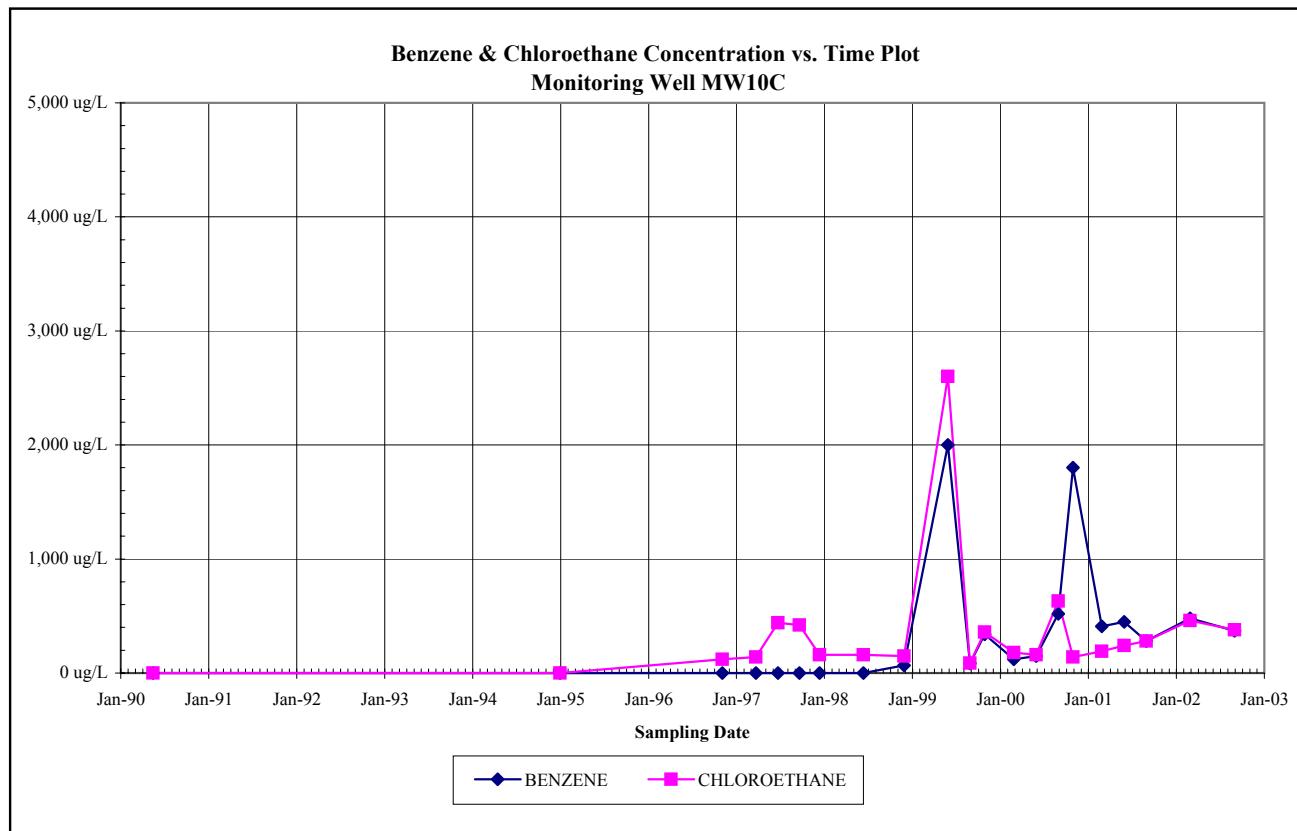
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW10C

DATE	BENZENE	CHLOROETHANE
BASELINE	150	420
August-89		
May-90	BDL	BDL
January-95	BDL	BDL
November-96	BDL	120 ug/L
March-97	BDL	140 ug/L
June-97	BDL	440 ug/L
September-97	BDL	420 ug/L
December-97	BDL	160 ug/L
June-98	BDL	160 ug/L
December-98	66 ug/L	150 ug/L
June-99	2,000 ug/L	2,600 ug/L
September-99	83 ug/L	88 ug/L
November-99	340 ug/L	360 ug/L
March-00	120 ug/L	180 ug/L
June-00	150 ug/L	160 ug/L
September-00	520 ug/L	630 ug/L
November-00	1,800 ug/L	140 ug/L
March-01	410 ug/L	190 ug/L
June-01	450 ug/L	240 ug/L
September-01	280 ug/L	280 ug/L
March-02	480 ug/L	460 ug/L
September-02	370 ug/L	380 ug/L

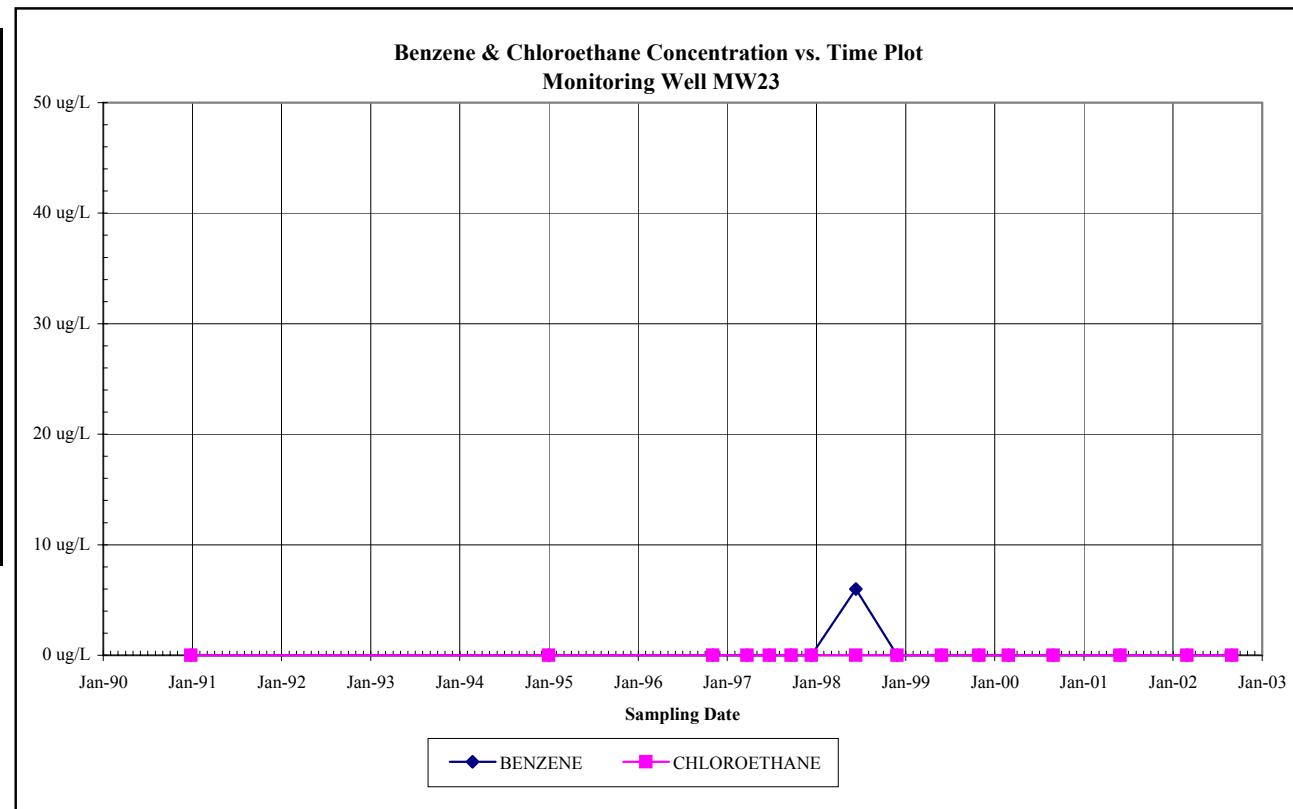
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW23

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
January-91	BDL	BDL
January-95	BDL	BDL
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	6 ug/L	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

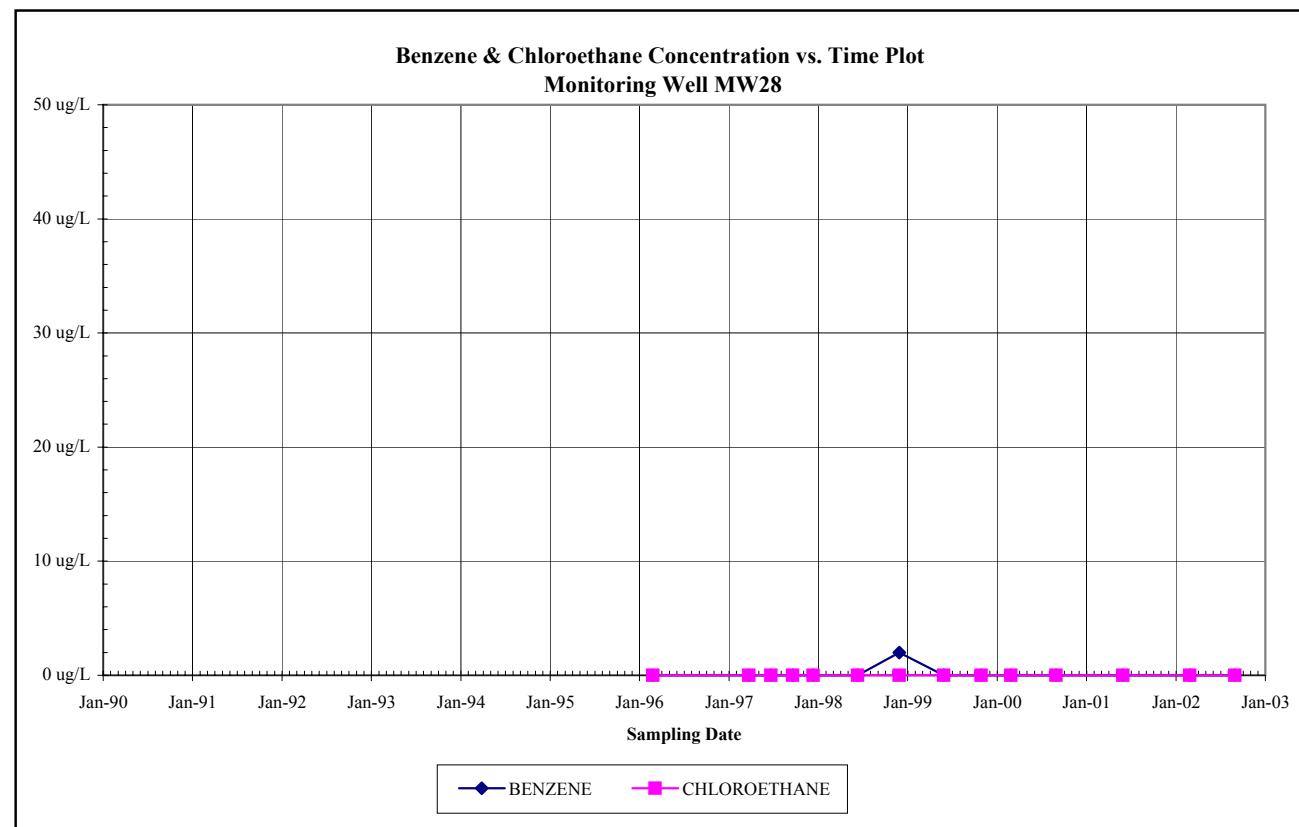
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW28**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	2 ug/L	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

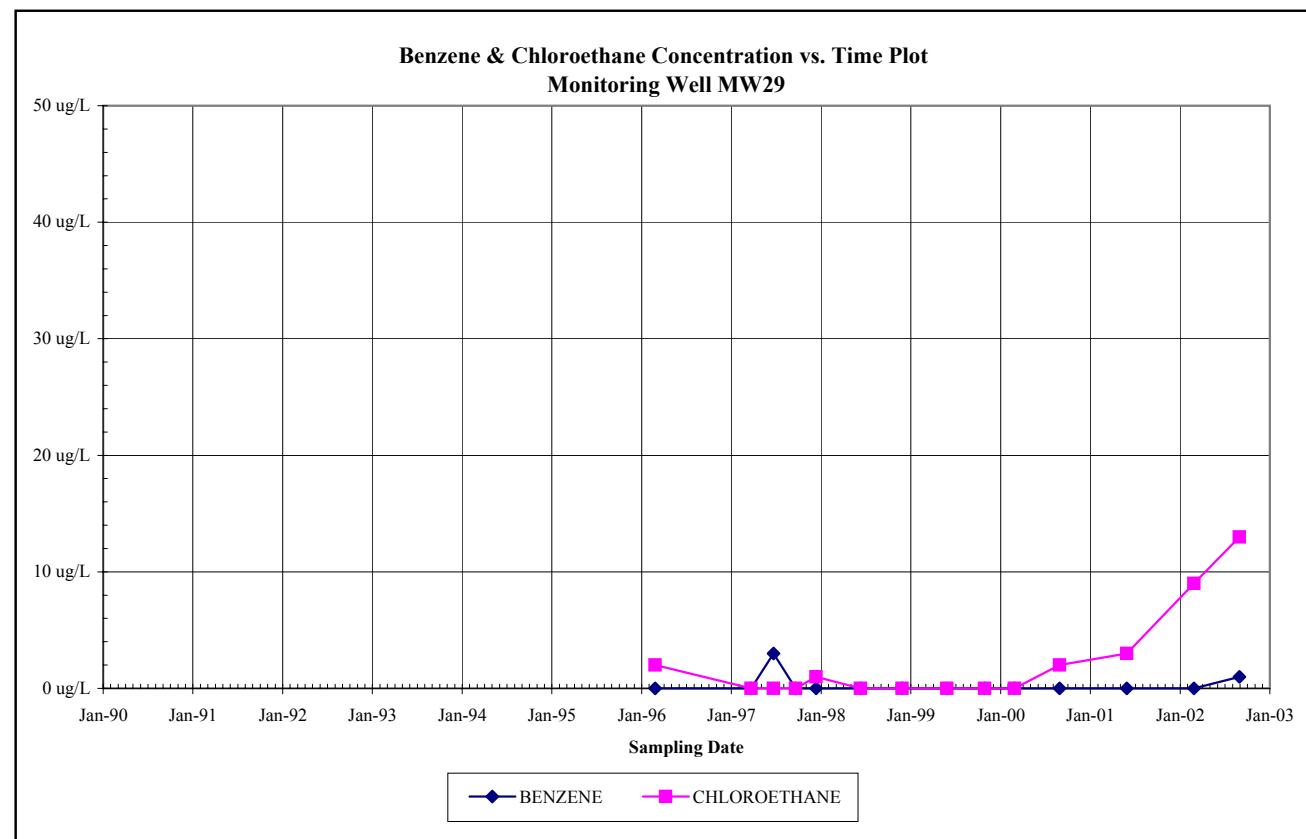
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW29

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	2 ug/L
March-97	BDL	BDL
June-97	3 ug/L	BDL
September-97	BDL	BDL
December-97	BDL	1 ug/L
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	2 ug/L
June-01	BDL	3 ug/L
March-02	BDL	9 ug/L
September-02	1 ug/L	13 ug/L

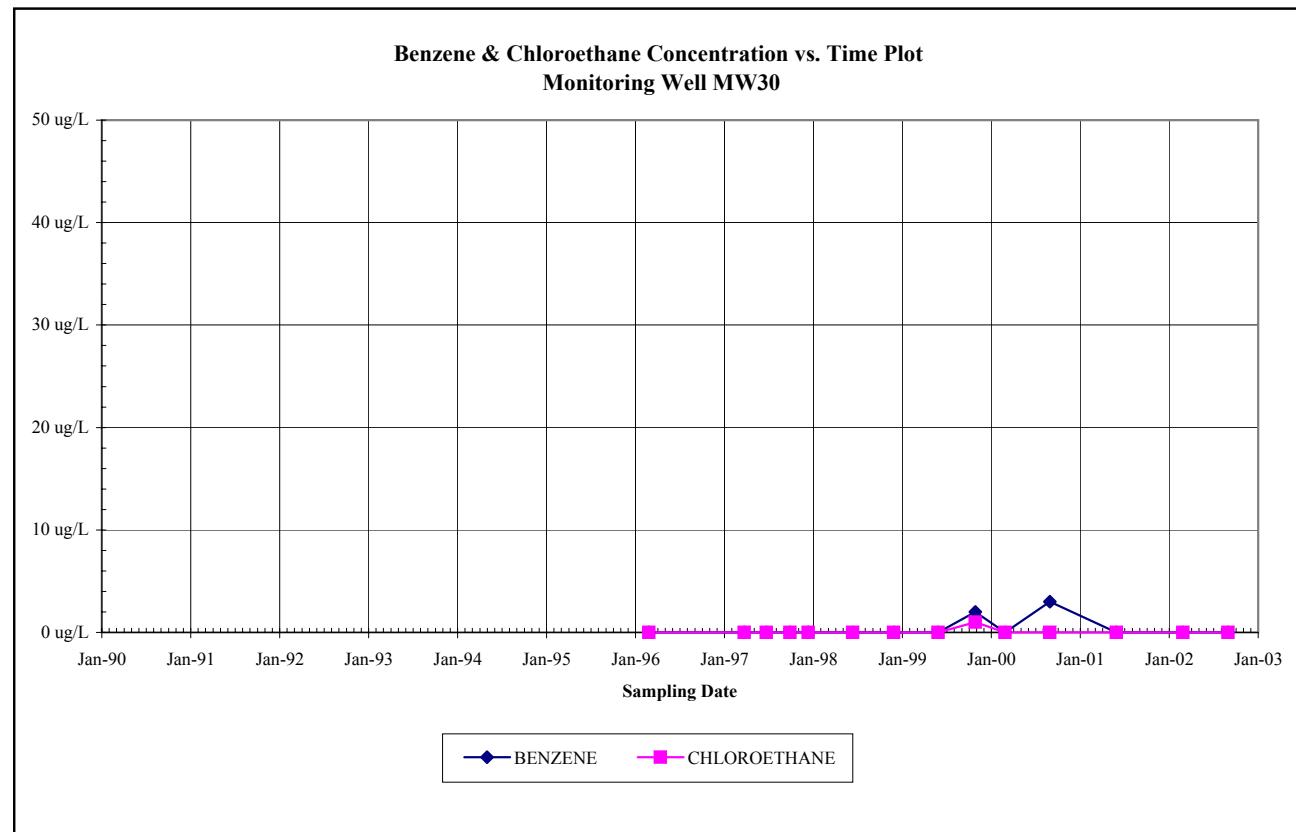
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW30**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
October-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	2 ug/L	1 ug/L
March-00	BDL	BDL
September-00	3 ug/L	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

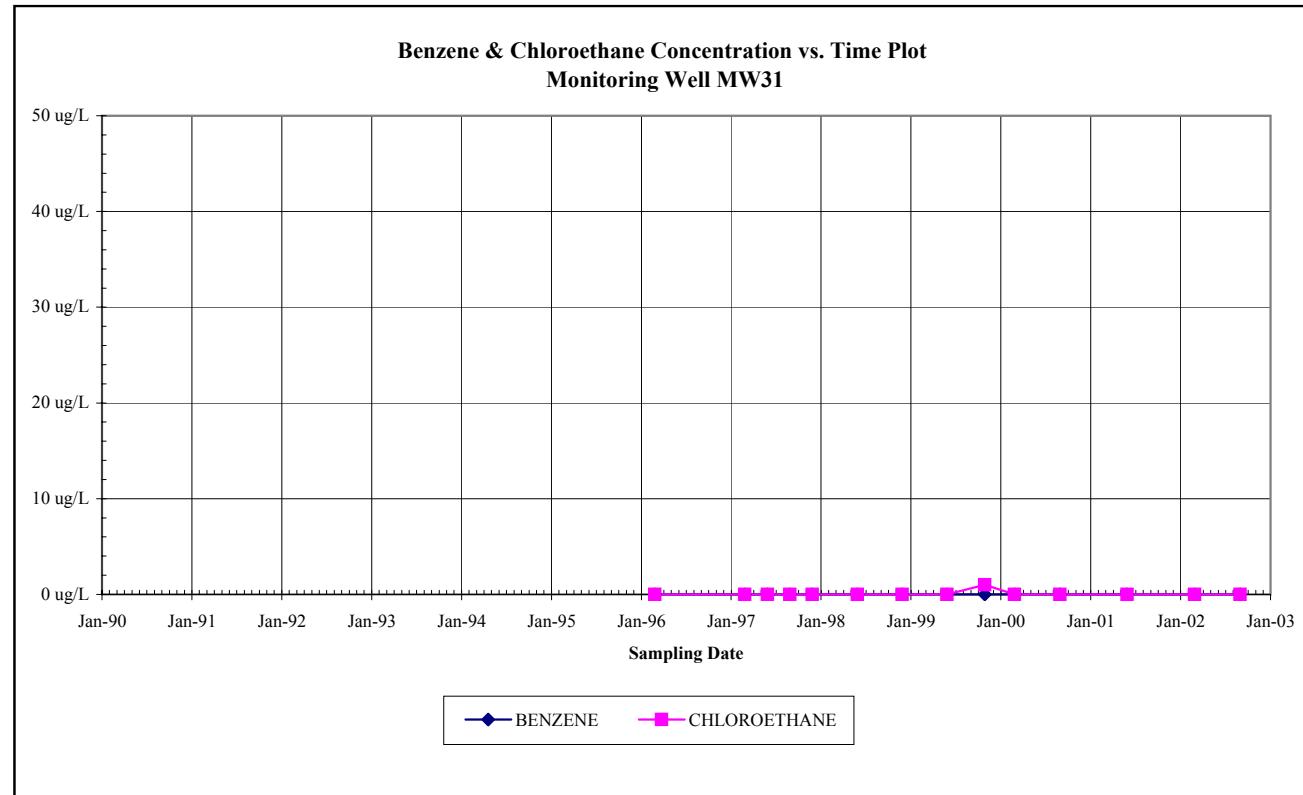
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW31**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	1 ug/L
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

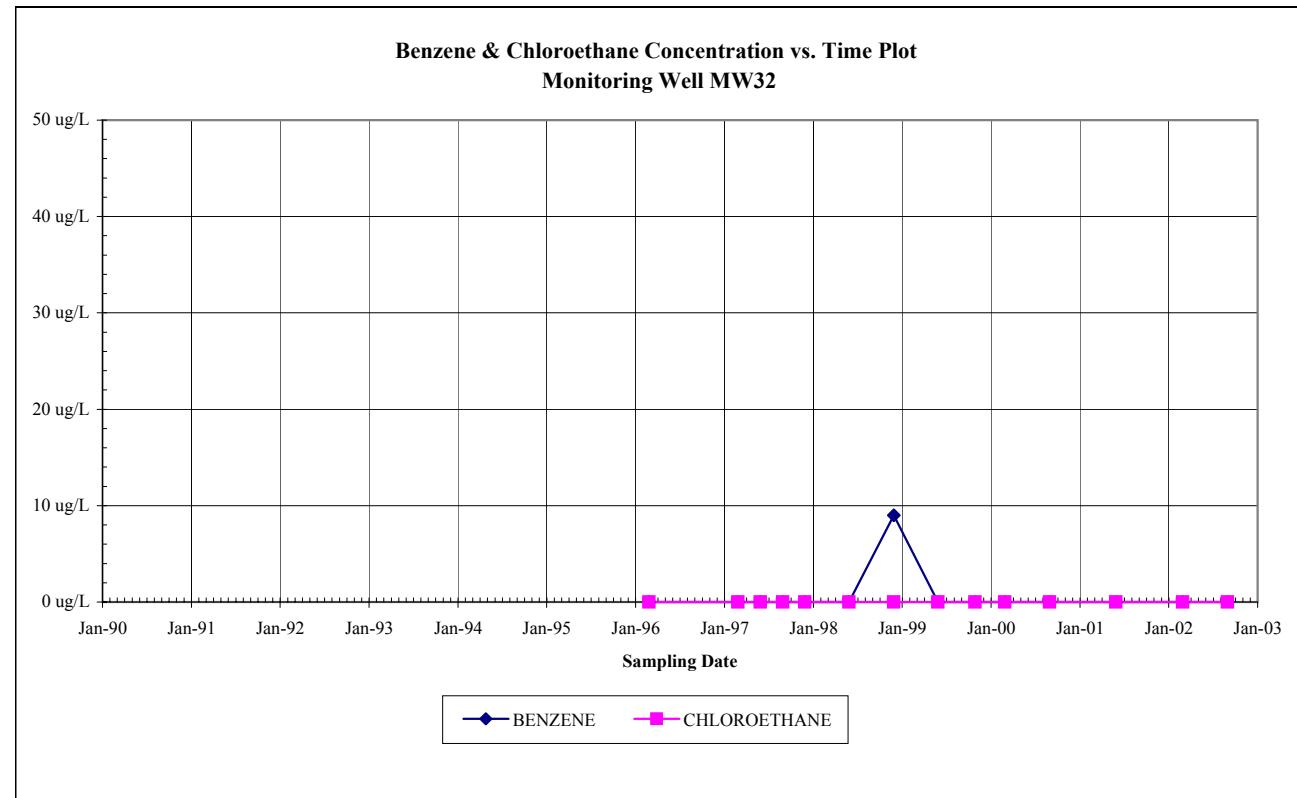
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW32**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	9 ug/L	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

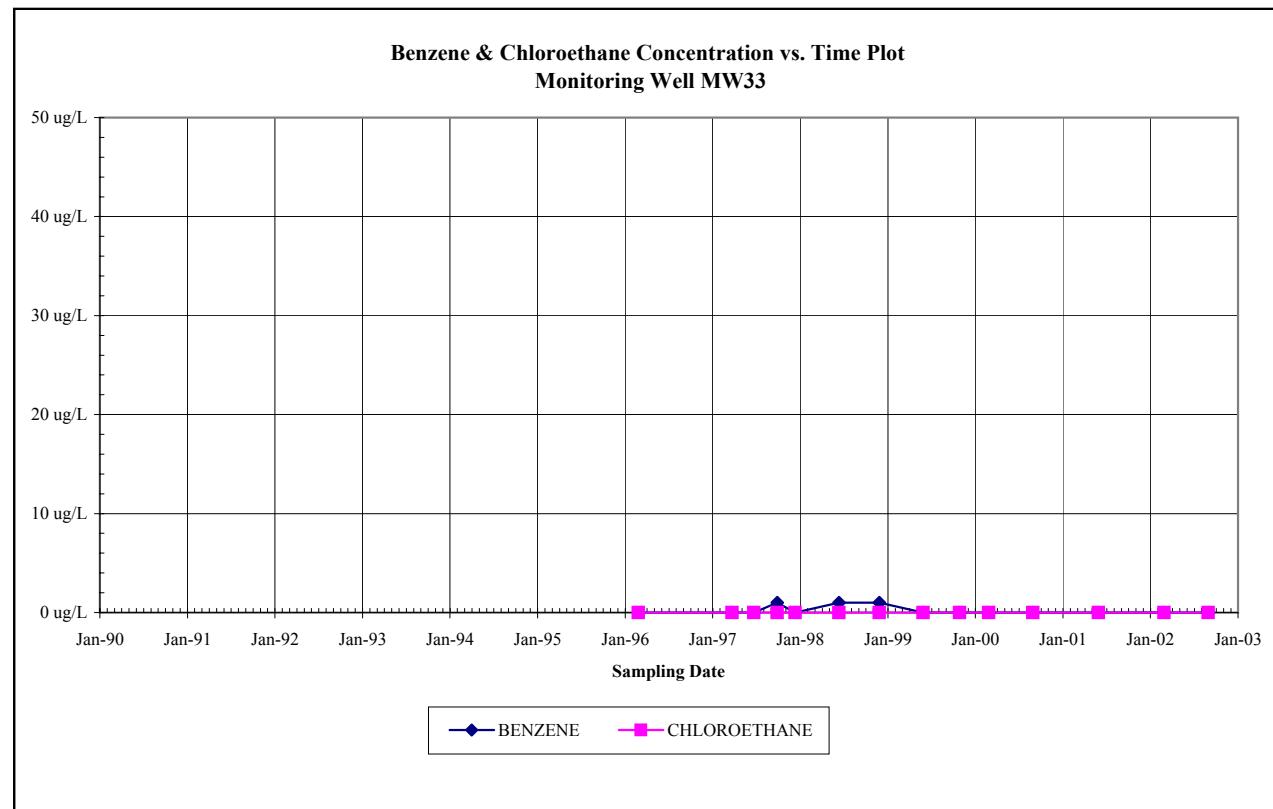
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW33**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
March-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
October-97	1 ug/L	BDL
December-97	BDL	BDL
June-98	1 ug/L	BDL
December-98	1 ug/L	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

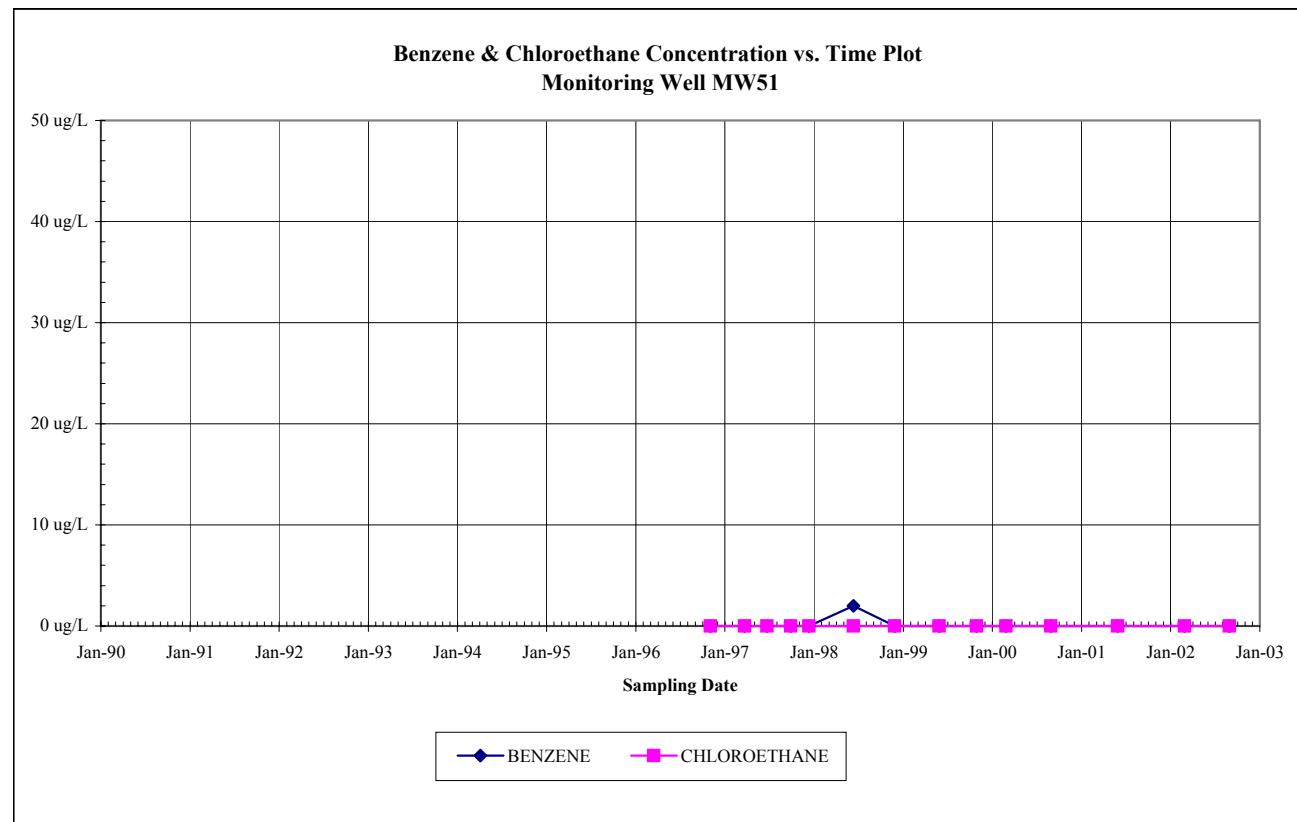
BDL = Below the Detection Limit



**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW51**

DATE	BENZENE	CHLOROETHANE
BASELINE	100	100
August-89		
May-90		
January-95		
November-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
October-97	BDL	BDL
December-97	BDL	BDL
June-98	2 ug/L	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

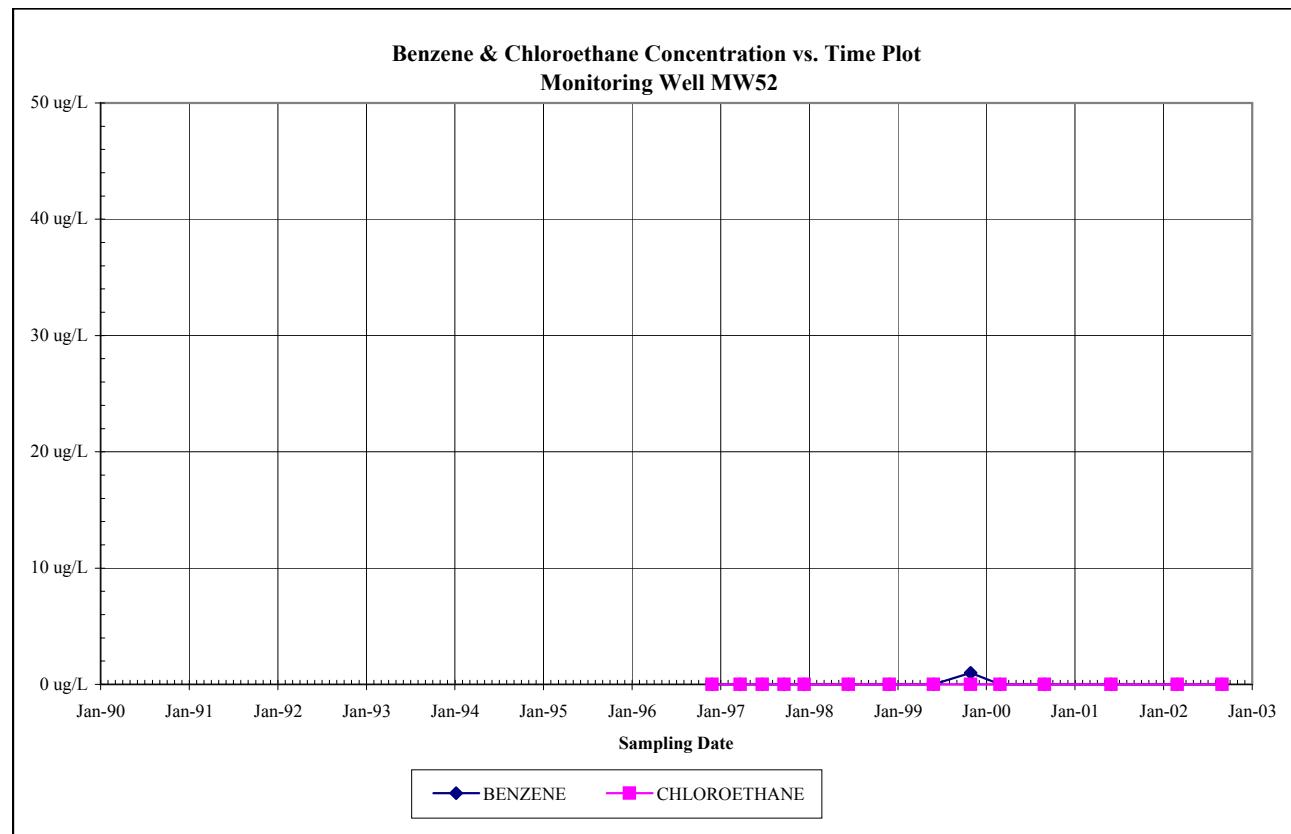
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW52

DATE	BENZENE	CHLOROETHANE
BASELINE	100	100
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	1 ug/L	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

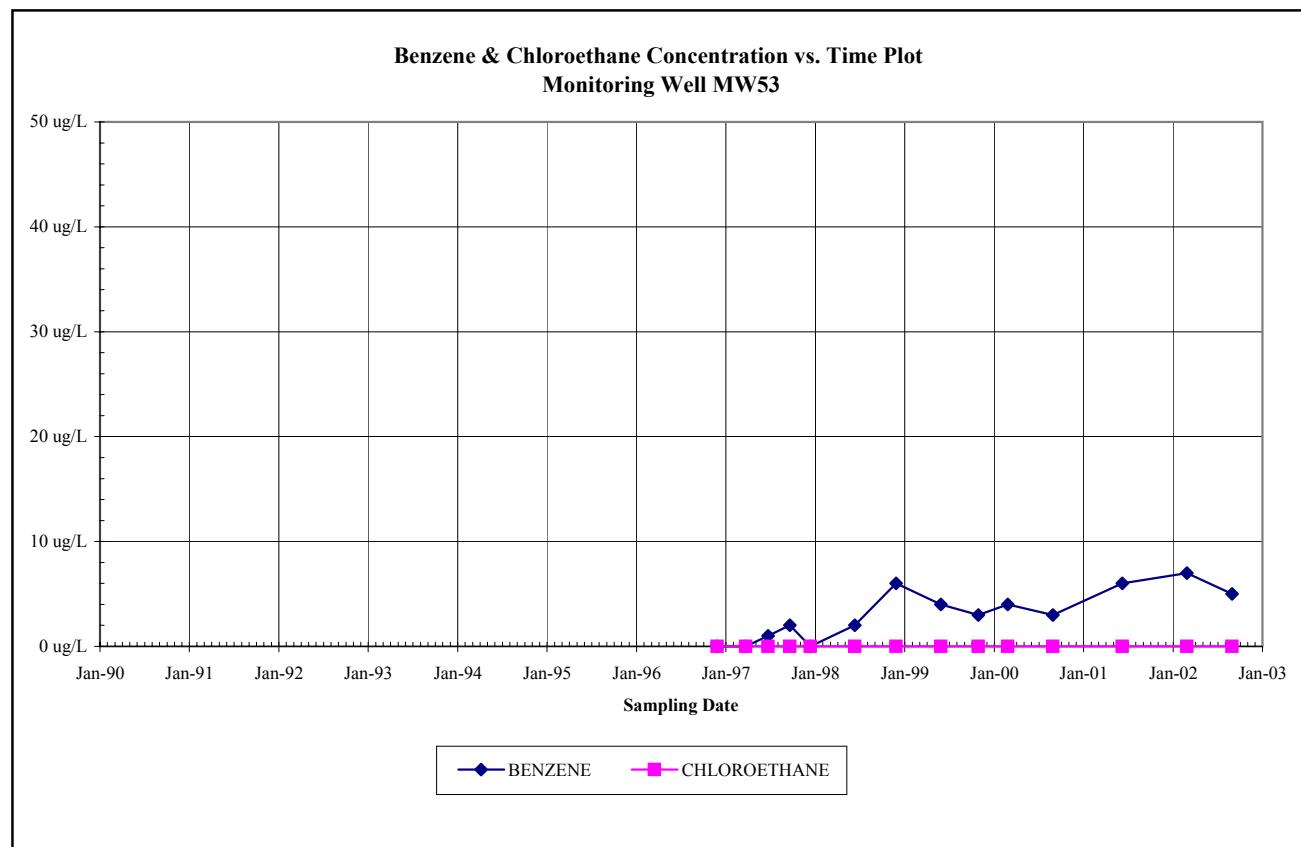
BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW53

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	1 ug/L	BDL
September-97	2 ug/L	BDL
December-97	BDL	BDL
June-98	2 ug/L	BDL
December-98	6 ug/L	BDL
June-99	4 ug/L	BDL
November-99	3 ug/L	BDL
March-00	4 ug/L	BDL
September-00	3 ug/L	BDL
June-01	6 ug/L	BDL
March-02	7 ug/L	BDL
September-02	5 ug/L	BDL

BDL = Below the Detection Limit



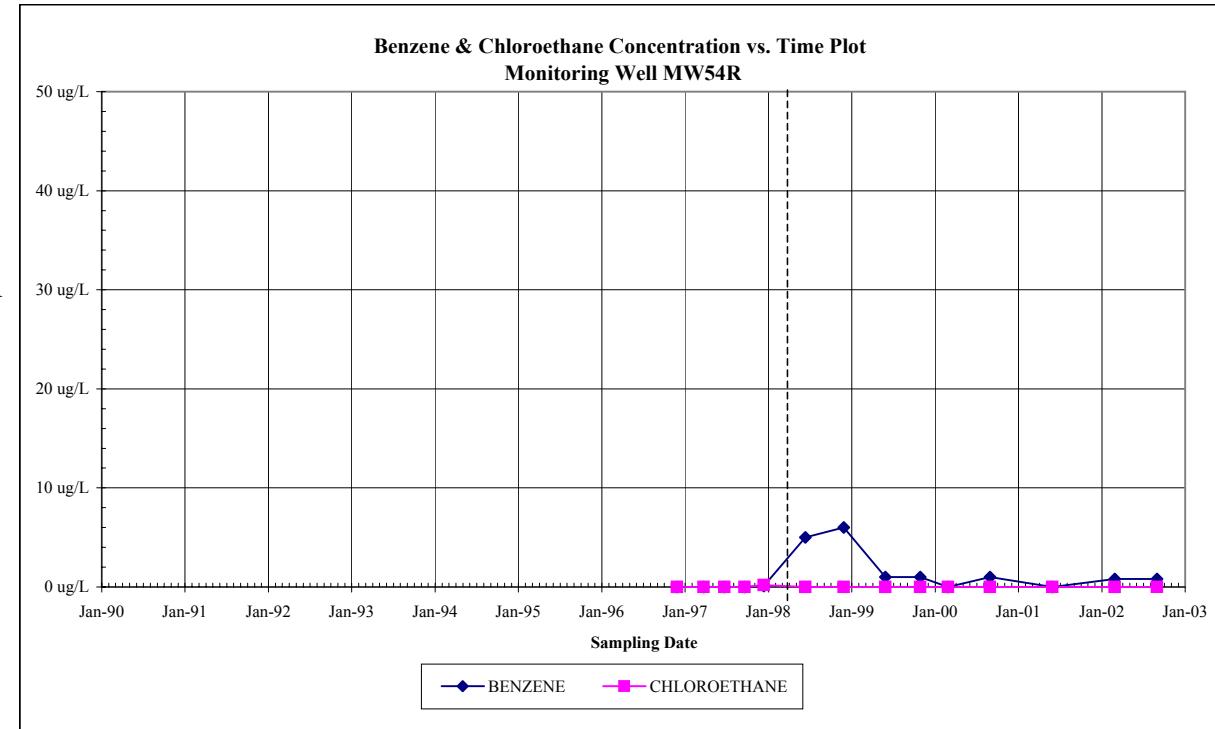
**Concentration vs. Time Plot for  
Lower Aquifer Monitoring Well MW54R**

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	0.1 ug/L	0.2 ug/L
June-98	5 ug/L	BDL
December-98	6 ug/L	BDL
June-99	1 ug/L	BDL
November-99	1 ug/L	BDL
March-00	BDL	BDL
September-00	1 ug/L	BDL
June-01	BDL	BDL
March-02	1 ug/L	BDL
September-02	1 ug/L	BDL

BDL = Below the Detection Limit

MW54 was damaged by a vehicle and was replaced with MW54R

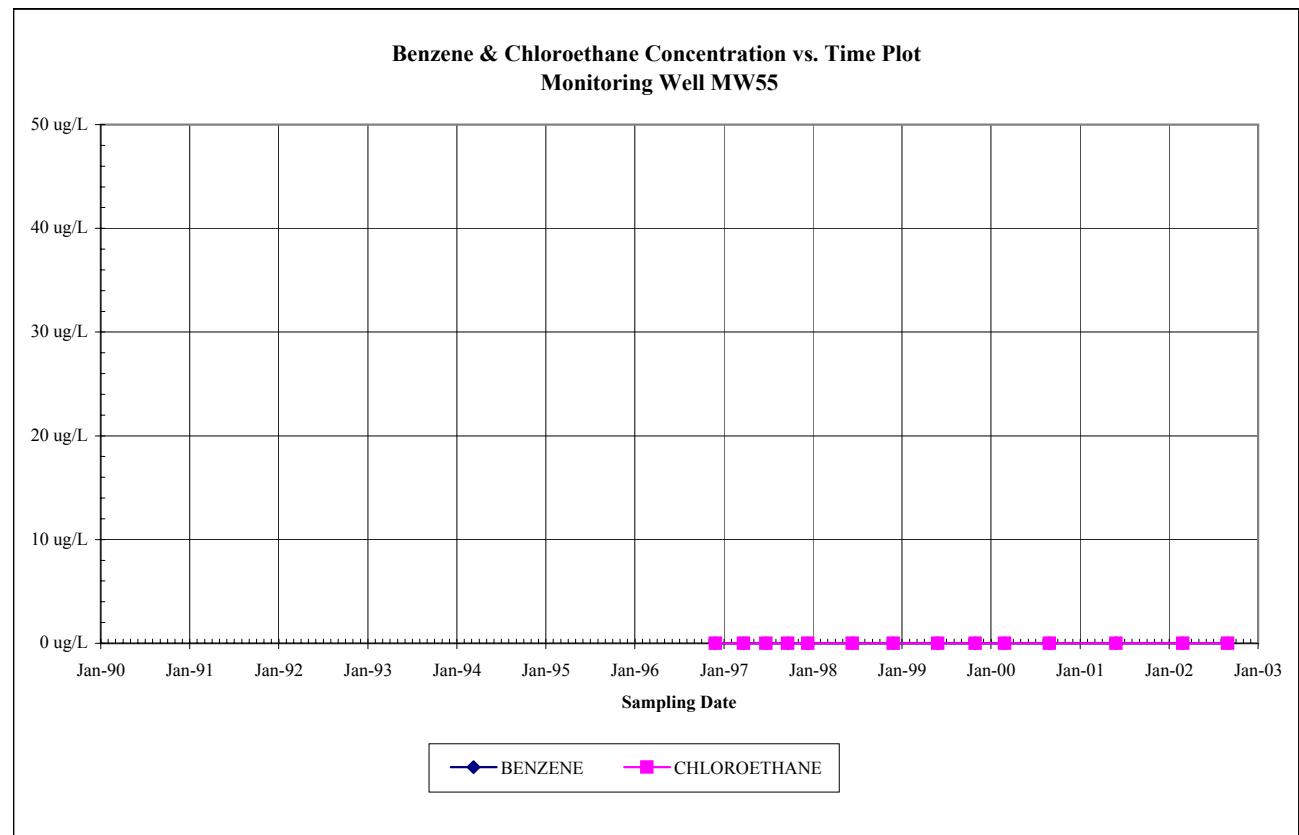
<- MW54R



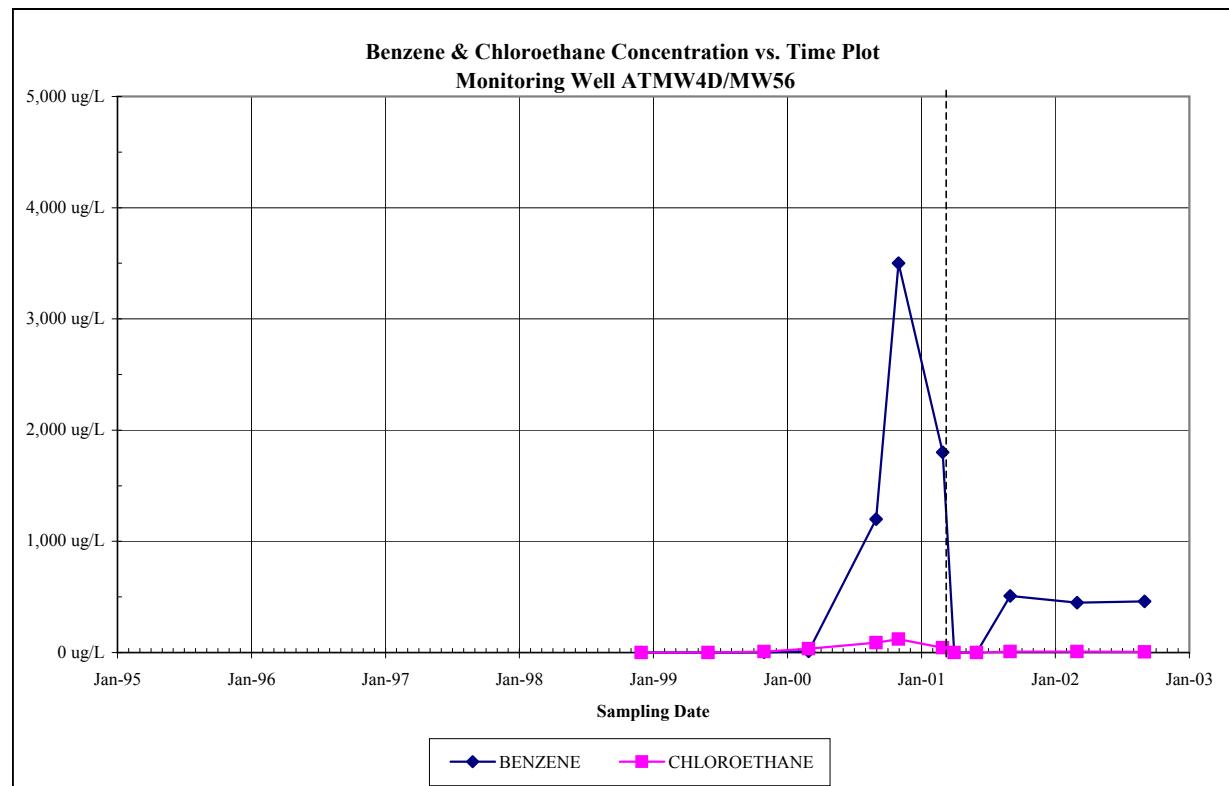
## Concentration vs. Time Plot for Lower Aquifer Monitoring Well MW55

DATE	BENZENE	CHLOROETHANE
BASELINE	10	10
August-89		
May-90		
January-95		
December-96	BDL	BDL
March-97	BDL	BDL
June-97	BDL	BDL
September-97	BDL	BDL
December-97	BDL	BDL
June-98	BDL	BDL
December-98	BDL	BDL
June-99	BDL	BDL
November-99	BDL	BDL
March-00	BDL	BDL
September-00	BDL	BDL
June-01	BDL	BDL
March-02	BDL	BDL
September-02	BDL	BDL

BDL = Below the Detection Limit



## Concentration vs. Time Plot for Lower Aquifer Monitoring Well ATMW4D-MW56



----- Line indicates change to replacement well

## **Appendix C**

### **Data Validation Narrative and Laboratory Analytical Reports**

Monitoring Wells –	Data Validation Narrative Upper Aquifer VOC Results Lower Aquifer VOC Results Quality Control Sample Results
Residential Wells –	Data Validation Narrative VOC Results SVOC Results PCB/Pesticide Results Inorganic Results Quality Control Sample Results

## **Introduction**

The following text is based on the validation of water samples collected at American Chemical Service, Inc. in September 2002.

Thirty water samples and nine QA/QC samples were analyzed by CompuChem Laboratories of Cary, North Carolina for the following parameters.

- Volatile Organic Compounds (VOCs), SW-846 8260B (Sample Delivery Group (SDG) I2231, samples: ACGWMW1120, ACGWMW1720, ACGWMW2820, ACGWMW5120, ACGWMW3020, ACGWMW3320, ACGWMW5620, ACGWMW54R20, ACGWMW5520, ACGWMW0820, ACGWMW3120, ACGWMW3220, ACGWMW1920, ACGWMW1420, ACGWMW2920, ACGWMW09R20)
- Volatile Organic Compounds (VOCs), SW-846 8260B (Sample Delivery Group (SDG) J2231, samples: ACGWMW2320, ACGWMW5220, ACGWMW5320, ACGWMW4220, ACGWMW4320, ACGWMW4420, ACGWMW1520, ACGWMW4520, ACGWMW0620, ACGWMW10C20, ACGWMW4820, ACGWMW4920, ACGWORCPZ10307, ACGWORCPZ10207)

Data validation was conducted in accordance with procedures specified in the following as applicable to each method:

- Quality Assurance Plan: For the Remedial Design/Remediation Action at the American Chemical Service, Inc. NPL Site (MWH, 2001)
- USEPA Contract Laboratory Program Statement of Work for Organic Analysis OLM03.1 (U.S. EPA, August 1994)
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis Multi-Media, Multi-Concentration ILM04.1 (U.S. EPA, February 2000)
- National Functional Guidelines for Organic Data Review (U.S. EPA, 1999)
- National Functional Guidelines for Inorganic Data Review (U.S. EPA, 1994)

The following quality control samples were collected during the September 2002 sampling round:

- Field blanks ACGWEB0120, ACGWEB0220, ACGWEB0320, ACGWORCEB0407
- Field duplicates ACGWDUP0120, ACGWDUP0220, ACGWDUP032
- Trip blanks ACGWTB0120, ACGWTB0220

## **Volatiles Data Review (SW8260B)**

### **1. Holding Times**

All holding times and cooler temperatures met requirements for all samples.

### **2. GC/MS Instrument Performance Check**

Instrument performance was checked at 12-hour intervals and all ion abundance requirements were met for all SDGs.

### **3. Initial Calibration**

Initial calibration was performed using the required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30% for all compounds. Average relative response factors (RRF) for all VOCs and system performance check compounds (SPCCs) were within method and validation criteria for all SDGs.

### **4. Continuing Calibration**

Continuing calibration was performed at the required frequencies. All continuing calibration RRFs for target compounds were greater than or equal to 0.05. The percent differences (%D) between the initial and continuing calibration RRFs were less than or equal to 25%.

### **5. Blanks**

No volatile contaminants were found in the method blanks except for the following:

SDG	Method Blank ID	Compound	Conc.	Associated Samples	Conc.	Flag
I2231 and J2231	VBLKTV	Methylene Chloride	5 µg/L	ACSGWDUP0120	3 µg/L	UB
				ACSGWMW5120	3 µg/L	UB
				ACSGWMW3020	3 µg/L	UB
				ACSGWMW3320	3 µg/L	UB
				ACSGWMW5620	6 µg/L	UB
				ACSGWMW2320	2 µg/L	UB
				ACSGWMW5220	2 µg/L	UB
				ACSGWDUP0220	2 µg/L	UB
				ACSGWMW5320	2 µg/L	UB
				ACSGWMW4220	2 µg/L	UB
				ACSGWMW4320	3 µg/L	UB
				ACSGWMW4420	2 µg/L	UB
				ACSGWEB0120	2 µg/L	UB
				ACSGWMW1520	3 µg/L	UB
				ACSGWMW4520	2 µg/L	UB
		2-Butanone	4 µg/L	None	NA	NA
		1,3-Dichlorobenzene	0.8 µg/L	ACSGWMW5620	4 µg/L	UB
		1,2,4-Trichlorobenzene	2 µg/L	ACSGWMW5620	7 µg/L	UB
				ACSGWMW2320	1 µg/L	UB

SDG	Method Blank ID	Compound	Conc.	Associated Samples	Conc.	Flag
I2231	VBLKSY	Methylene Chloride	2 µg/L	ACSGWMW54R20	2 µg/L	UB
				ACSGWMW5520	2 µg/L	UB
				ACSGWMW3120	2 µg/L	UB
				ACSGWMW3220	2 µg/L	UB
				ACSGWDUP0320	2 µg/L	UB
				ACSGWEB0220	2 µg/L	UB
				ACSGWMW1920	2 µg/L	UB
				ACSGWTB0120	2 µg/L	UB
				ACSGWMW2920	2 µg/L	UB
				ACSGWMW09R20	3 µg/L	UB
		1,3-Dichlorobenzene	1 µg/L	ACSGWDUP0320	0.7 µg/L	UB
		1,2-Dichlorobenzene	1 µg/L	ACSGWMW5620	3 µg/L	UB
		1,2,4-Trichlorobenzene	2 µg/L	ACSGWMW5520	1 µg/L	UB
				ACSGWEB0220	1 µg/L	UB
				ACSGWMW09R20	1 µg/L	UB
I2231	VBLKTJ	1,3-Dichlorobenzene	0.7 µg/L	None	NA	NA
		1,2,4-Trichlorobenzene	2 µg/L	None	NA	NA
I2231	VBLKSX	Chloromethane	1 µg/L	ACSGWMW1120	1 µg/L	UB
				ACSGWMW1720	2 µg/L	UB
				ACSGWMW2820	2 µg/L	UB
		1,1-Dichloroethene	0.5 µg/L	None	NA	NA
		Acetone	5 µg/L	ACSGWMW1120	5 µg/L	UB
				ACSGWMW1720	7 µg/L	UB
				ACSGWMW2820	7 µg/L	UB
		Methylene Chloride	5 µg/L	ACSGWMW1120	5 µg/L	UB
				ACSGWMW1720	6 µg/L	UB
				ACSGWMW2820	4 µg/L	UB
		Benzene	0.9 µg/L	ACSGWMW1120	0.9 µg/L	UB
		Toluene	1 µg/L	ACSGWMW1120	2 µg/L	UB
				ACSGWMW1720	2 µg/L	UB
				ACSGWMW2820	2 µg/L	UB
		Chlorobenzene	1 µg/L	None	NA	NA
		Styrene	4 µg/L	ACSGWMW1720	2 µg/L	UB
				ACSGWMW2820	1 µg/L	UB
		Isopropyl Benzene	2 µg/L	ACSGWMW1720	8 µg/L	UB
				ACSGWMW2820	1 µg/L	UB
		1,3 Dichlorobenzene	1 µg/L	ACSGWMW1720	0.8 µg/L	UB
		1,4-Dichlorobenzene	1 µg/L	ACSGWMW1720	1 µg/L	UB
		1,2-Dichlorobenzene	2 µg/L	ACSGWMW1720	3 µg/L	UB
		1,2,4-Trichlorobenzene	3 µg/L	ACSGWMW1720	1 µg/L	UB
J2231	VBLKXE	2-Butanone	3 µg/L	ACSGWORCPZ10207	190 µg/L	B
J2231	VBLKBX	Acetone	4 µg/L	ACSGWORCPZ10207	190 µg/L	B
		2-Butanone	5 µg/L	ACSGWORCPZ10207	190 µg/L	B

Sample concentrations were compared to concentrations detected in the method blanks. The results for the above listed samples were at concentrations less than five times the concentration in the associated blanks, resulting in 'UB' sample data qualification.. Where associated sample concentrations were detected at levels greater than five times the concentration in the associated blank, the data were qualified with a 'B'.

No volatile contaminants were found in the field blanks except for the following:

<b>SDG</b>	<b>Field Blank ID</b>	<b>Compound</b>	<b>Conc.</b>	<b>Associated Samples</b>	<b>Conc.</b>	<b>Flag</b>
I2231	ACSGWEB0220	Methylene Chloride	2 µg/L UB	Compound considered ND in field blank sample. No further qualification of associated sample data is necessary.	NA	NA
		Trichloroethene	2 µg/L	None	NA	NA
		1,2,4-Trichlorobenzene	1 µg/L UB	Compound considered ND in field blank sample. No further qualification of associated sample data is necessary.	NA	NA
J2231	ACSGWEB0120	Methylene Chloride	2 µg/L UB	Compound considered ND in field blank sample. No further qualification of associated sample data is necessary.	NA	NA
J2231	ACSGWORCEB0407	Benzene	0.7 µg/L UB	Compound considered ND in field blank sample. No further qualification of associated sample data is necessary.	NA	NA

Volatile contaminants found in the field blanks that were qualified with a 'UB' are considered not detected in the field blank sample.

No volatile contaminants were found in the trip blanks with the following exceptions:

<b>SDG</b>	<b>Trip Blank ID</b>	<b>Compound</b>	<b>Conc.</b>	<b>Associated Samples</b>	<b>Conc.</b>	<b>Flag</b>	
I2231	ACSGWTB0120	Methylene Chloride	2 µg/L UB	Compound considered ND in trip blank sample. No further qualification of associated sample data is necessary.	NA	NA	
J2231	ACSGWTB0220	Methylene Chloride	2 µg/L	ACSGWMW10C20	14 µg/L	UB	
				ACSGWMW4820	19 µg/L	UB	
				ACSGWMW4920	9 µg/L	UB	
				ACSGWORCPZ10307	3 µg/L	UB	
	Benzene		1 µg/L	ACSGWMW10C20	370 µg/L	B	
				ACSGWMW4820	1300 µg/L	B	
				ACSGWMW4920	570 µg/L	B	
				ACSGWORCPZ10307	79 µg/L	B	
				ACSGWORCPZ10207	7400 µg/L	B	
				ACSGWORCEBO407	0.7 µg/L	UB	

Volatile contaminants found in the trip blanks that were qualified with a 'UB' are considered not detected in the trip blank sample. Sample concentrations were compared to concentrations detected in the associated trip blanks. The results for the samples listed above at concentrations less than five times the concentration in the blanks, resulting in 'UB' sample data qualification. Where associated sample concentrations were detected at levels greater than five times the concentration in the trip blank, the data were qualified with a 'B'.

## 6. System Monitoring Compounds

System monitoring compounds (surrogate spike compounds) recoveries were within the QAPP QC limits with the following exceptions:

Sample ID	Surrogate	Percent Recovery	Control Limits	Compounds	Conc. (µg/L)	Flag
ACSGWDUP0220	1,2-Dichloroethane-d4 Bromofluorobenzene	79 76	80-120	Methylene Chloride	2	J
				All ND Compounds	<RL	UJ
ACSGWEB0320	Toluene-d8 Bromofluorobenzene	79 77	80-120	All ND Compounds	<RL	UJ
ACSGWMW09R20 DL	1,2-Dichloroethane-d4 Toluene-d8	71 79	80-120	The data for this sample were not qualified because the undiluted sample had acceptable surrogate recovery results.		

## 7. Matrix Spike/Matrix Spike Duplicates

Matrix Spike (MS) and matrix spike duplicate (MSD) samples were within QAPP QC limits. However, the laboratory selected sample ACGWMW09R20 to perform the MS/MSD analysis for SDG I2231 instead of sample ACGWMW54R20 as specified on the chain of custody.

## 8. Laboratory Control Samples

Laboratory control samples percent recoveries were within QAPP QC limits for all samples.

## 9. Regional Quality Assurance and Quality Control

Not applicable.

## 10. Internal Standards

All internal standard areas and retention times were within QAPP QC limits.

## 11. Target Compound Identification

All target compounds were identified appropriately by the laboratory. There was no significant shift in the retention times for the internal standard.

## 12. Compound Quantitation and Reported CRQLs

The reporting limits for each compound met the criteria outlined in the QAPP. Any concentrations reported below the reporting limit are qualified with a 'J' flag to indicate the data are estimated.

### **13. Tentatively Identified Compounds**

Tentatively identified compounds were not evaluated.

### **14. System Performance**

System performance was acceptable based on the instrument tune and calibration standards.

### **15. Overall Assessment of Data**

The data reported are acceptable. The only data that were qualified are the data that are summarized and discussed in sections 5 and 6 (Blanks and Surrogates) of this report.

### **16. Field Duplicates**

No VOCs were detected above the reporting limit in the field duplicate samples except for the following:

		<b>Concentration (µg/L)</b>		
<b>SDG</b>	<b>Compound</b>	ACSGWMW1720	ACSGWDUP0120	<b>RPD</b>
I2231	Isopropyl Benzene	8	6	28.57%

## **Data Quality Assessment**

All data collected during the twentieth groundwater-sampling event are definitive. The following sections provide details on the precision, accuracy, representativeness, completeness, and comparability (PARCC) of the environmental samples, field QC samples, and laboratory data reported for this field event. The sample cross references are listed in Table 1 and the sample holding times are listed in Table 2.

### **1. Precision**

The relative percent difference (RPD) calculated from data generated from the primary and field duplicate samples and the matrix spike and matrix spike duplicate (MS/MSD) samples provide a measurement of field and laboratory precision. Summaries of the RPDs generated from primary and field duplicates and MS/MSD samples are provided in Tables 3 and 4, respectively.

### **2. Accuracy**

Percent recoveries calculated from surrogate spike compounds added to samples analyzed for organic parameters and from target compounds added to laboratory control samples (LCS) provide a measurement of laboratory accuracy. Summaries of the spike recoveries for LCS samples are provided in Table 5. A summary of the surrogate recovery data is provided in Table 6.

### **3. Representativeness**

Representativeness was achieved through the use of standard field sampling and analytical procedures. All field sampling and analytical procedures were implemented per the Quality Assurance Project Plan (QAPP).

### **4. Completeness**

The percent completeness is calculated for each method and analyte combination. Completeness is defined as the number of valid results (i.e., those not rejected) minus the number of possible results not reported (i.e., samples that could not be analyzed for any reason), divided by the total number of possible results. The completeness by method is summarized below and listed in Table 7. The completeness goal for each analytical method is 95 percent. The overall method percent completeness for volatile organic compounds, semi-volatile organic compounds, and metals is 100 percent, which exceeds the completeness goal of 95 percent.

### **5. Comparability**

Comparability was achieved by using standard methods for sampling and analysis and reporting data in standard units.

**Table 1**  
**Sample Cross Reference**  
**Round 20**

Field Sample Identification	Matrix	Field Location Identification	Collection Depth (feet)	Collection Date	Laboratory Sample Identification	Sample Type
ACSGWMW1120	Water	MW11	NA	9/10/2002	I2231-1	Normal Sample
ACSGWMW1720	Water	MW17	NA	9/10/2002	I2231-2	Normal Sample
ACSGWMW2820	Water	MW28	NA	9/10/2002	I2231-3	Normal Sample
ACSGWMW5120	Water	MW51	NA	9/10/2002	I2231-5	Normal Sample
ACSGWMW3020	Water	MW30	NA	9/10/2002	I2231-6	Normal Sample
ACSGWMW3320	Water	MW33	NA	9/10/2002	I2231-7	Normal Sample
ACSGWMW5620	Water	MW56	NA	9/10/2002	I2231-8	Normal Sample
ACSGWMW54R20	Water	MW54R	NA	9/11/2002	I2231-9	Normal Sample
ACSGWMW5520	Water	MW55	NA	9/11/2002	I2231-10	Normal Sample
ACSGWMW0820	Water	MW08	NA	9/11/2002	I2231-11	Normal Sample
ACSGWMW3120	Water	MW31	NA	9/11/2002	I2231-12	Normal Sample
ACSGWMW3220	Water	MW32	NA	9/11/2002	I2231-13	Normal Sample
ACSGWMW1920	Water	MW19	NA	9/11/2002	I2231-16	Normal Sample
ACSGWMW1420	Water	MW14	NA	9/11/2002	I2231-18	Normal Sample
ACSGWMW2920	Water	MW29	NA	9/11/2002	I2231-19	Normal Sample
ACSGWMW09R20	Water	MW09R	NA	9/11/2002	I2231-20	Normal Sample
ACSGWMW09R20MS	Water	MW09R	NA	9/11/2002	I2231-20	Matrix Spike
ACSGWMW09R20MSD	Water	MW09R	NA	9/11/2002	I2231-20	Matrix Spike Duplicate
ACSGWDUP0120	Water	FIELDQC	NA	9/10/2002	I2231-4	Field Duplicate
ACSGWDUP0320	Water	FIELDQC	NA	9/11/2002	I2231-14	Field Duplicate
ACSGWEB0220	Water	FIELDQC	NA	9/11/2002	I2231-15	Equipment Blank
ACSGWTB0120	Water	FIELDQC	NA	9/11/2002	I2231-17	Trip Blank
ACSGWMW2320	Water	MW23	NA	9/10/2002	J2231-1	Normal Sample
ACSGWMW2320MS	Water	MW23	NA	9/10/2002	J2231-1	Matrix Spike
ACSGWMW2320MSD	Water	MW23	NA	9/10/2002	J2231-1	Matrix Spike Duplicate
ACSGWMW5220	Water	MW52	NA	9/10/2002	J2231-2	Normal Sample
ACSGWDUP0220	Water	FIELDQC	NA	9/10/2002	J2231-3	Field Duplicate
ACSGWMW5320	Water	MW53	NA	9/10/2002	J2231-4	Normal Sample
ACSGWMW4220	Water	MW42	NA	9/10/2002	J2231-5	Normal Sample
ACSGWMW4320	Water	MW43	NA	9/10/2002	J2231-6	Normal Sample
ACSGWMW4420	Water	MW44	NA	9/10/2002	J2231-7	Normal Sample
ACSGWEB0120	Water	FIELDQC	NA	9/10/2002	J2231-8	Equipment Blank
ACSGWMW1520	Water	MW15	NA	9/11/2002	J2231-9	Normal Sample
ACSGWMW4520	Water	MW45	NA	9/11/2002	J2231-10	Normal Sample
ACSGWMW0620	Water	MW06	NA	9/23/2002	J2231-11	Normal Sample
ACSGWMW10C20	Water	MW10C	NA	9/23/2002	J2231-12	Normal Sample
ACSGWMW4820	Water	MW48	NA	9/23/2002	J2231-13	Normal Sample
ACSGWMW4920	Water	MW49	NA	9/23/2002	J2231-14	Normal Sample
ACSGWORCPZ10307	Water	ORCPZ10307	NA	9/23/2002	J2231-15	Normal Sample
ACSGWORCPZ10207	Water	ORCPZ10207	NA	9/23/2002	J2231-16	Normal Sample
ACSGWEB0320	Water	FIELDQC	NA	9/23/2002	J2231-17	Equipment Blank
ACSGWTB0220	Water	FIELDQC	NA	9/23/2002	J2231-18	Trip Blank
ACSGWORCEB0407	Water	FIELDQC	NA	9/23/2002	J2231-19	Equipment Blank

**Notes:**

NA - Not Applicable

**Table 2**  
**Holding Time Evaluation: Summary of Extraction and Analysis Dates**  
**Round 20**

Analytical Method	Sample Identification	Sample Collection Date	Sample Analysis Date	Sample Analysis Holding Time (days)
SW8260B	ACSGWDUP0120	9/10/2002	9/24/2002	14
	ACSGWDUP0320	9/22/2002	9/25/2002	3
	ACSGWEB0220	9/11/2002	9/25/2002	14
	ACSGWMW0820	9/11/2002	9/25/2002	14
	ACSGWMW09R20	9/11/2002	9/25/2002	14
	ACSGWMW09RDL	9/11/2002	9/25/2002	14
	ACSGWMW1120	9/10/2002	9/21/2002	11
	ACSGWMW1420	9/11/2002	9/25/2002	14
	ACSGWMW1720	9/10/2002	9/24/2002	14
	ACSGWMW1920	9/11/2002	9/25/2002	14
	ACSGWMW2820	9/10/2002	9/21/2002	11
	ACSGWMW2920	9/11/2002	9/25/2002	14
	ACSGWMW3020	9/10/2002	9/24/2002	14
	ACSGWMW3120	9/11/2002	9/25/2002	14
	ACSGWMW3220	9/11/2002	9/25/2002	14
	ACSGWMW3320	9/10/2002	9/24/2002	14
	ACSGWMW5120	9/10/2002	9/24/2002	14
	ACSGWMW54R20	9/11/2002	9/24/2002	13
	ACSGWMW5520	9/11/2002	9/25/2002	14
	ACSGWMW5620	9/10/2002	9/24/2002	14
	ACSGWMW5620DL	9/10/2002	9/24/2002	14
	ACSGWTB0120	9/11/2002	9/25/2002	14
	ACSGWMW09R20MS	9/11/2002	9/25/2002	14
	ACSGWMW09RMSD	9/11/2002	9/25/2002	14
	ACSGWDUP0220	9/10/2002	9/24/2002	14
	ACSGWEB0120	9/10/2002	9/24/2002	14
	ACSGWEB0320	9/23/2002	9/27/2002	4
	ACSGWMW0620	9/23/2002	9/27/2002	4
	ACSGWMW10C20	9/23/2002	9/27/2002	4
	ACSGWMW10C20DL	9/23/2002	9/27/2002	4
	ACSGWMW1520	9/11/2002	9/24/2002	13
	ACSGWMW2320	9/10/2002	9/24/2002	14
	ACSGWMW4220	9/10/2002	9/24/2002	14
	ACSGWMW4320	9/10/2002	9/24/2002	14
	ACSGWMW4420	9/10/2002	9/24/2002	14
	ACSGWMW4520	9/11/2002	9/24/2002	13
	ACSGWMW4820	9/23/2002	9/27/2002	4
	ACSGWMW4820DL	9/23/2002	9/27/2002	4
	ACSGWMW4920	9/23/2002	9/27/2002	4
	ACSGWMW4920DL	9/23/2002	9/27/2002	4
	ACSGWMW5220	9/10/2002	9/24/2002	14
	ACSGWMW5320	9/10/2002	9/24/2002	14
	ACSGWORCEB0407	9/23/2002	9/27/2002	4
	ACSGWORCPZ10207	9/23/2002	9/27/2002	4
	ACSGWORCPZ10207DL	9/23/2002	10/2/2002	9
	ACSGWORCPZ10307	9/23/2002	9/27/2002	4
	ACSGWTB0220	9/23/2002	9/27/2002	4
	ACSGWMW2320MS	9/10/2002	9/24/2002	14
	ACSGWMW2320MSD	9/10/2002	9/24/2002	14

**Notes:**

EB - Equipment Blank Sample

FD - Field Duplicate Sample

TB - Trip Blank Sample

MS - Matrix Spike

MS - Matrix Spike Duplicate

DL - Diluted Sample

**Table 3**  
**Field Duplicate RPD Summary**  
**Round 20**

Sample Identification	Compound	Primary Sample		Field Duplicate		Units	RPD
		Concentration	Flag	Concentration	Flag		
ACSGWMW1720	Chloromethane	2	J	<5		µg/L	NA
	Acetone	7	J	<13		µg/L	NA
	Methylene Chloride	6		3	J	µg/L	NA
	Methylcyclohexane	5	J	1	J	µg/L	NA
	Toluene	2	J	<5		µg/L	NA
	Tetrachloroethene	1	J	<5		µg/L	NA
	Ethylbenzene	3	J	2	J	µg/L	NA
	Styrene	2	J	<5		µg/L	NA
	Isopropyl Benzene	8		6		µg/L	28.57%
	1,3-Dichlorobenzene	0.8	J	<5		µg/L	NA
	1,4-Dichlorobenzene	1	J	<5		µg/L	NA
	1,2-Dichlorobenzene	3	J	2	J	µg/L	NA
	1,2,4-Trichlorobenzene	1	J	<5		µg/L	NA
ACSGWMW3220	Methylene Chloride	2	J	2	J	µg/L	NA
	2-Butanone	3	J	<13		µg/L	NA
	1,1,1-Trichloroethane	<5		0.7	J	µg/L	NA
	1,3-Dichlorobenzene	<5		0.7	J	µg/L	NA
ACSGWMW5320	Methylene Chloride	2	J	2	J	µg/L	NA
	Benzene	5		<5		µg/L	NA

**Notes:**

µg/L - Micrograms per Liter

NA - Not Applicable

RPD - Relative Percent Difference

**Flags:**

J - Indicates an estimated value. The compound was positively detected, but the associated numerical value is above the method detection limit and below the practical quantitation limit.

**Table 4**  
**Matrix Spike and Matrix Spike Duplicate RPD and Recovery Summary**  
**Round 20**

Sample Identification	Location ID	Compound	Matrix Spike (% Rec)	Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD	Control Limits (%)
ACSGWMW2320	MW23	1,1-Dichloroethene	80	84	60-140	4.88	14
		Benzene	80	80	60-140	0.00	11
		Chlorobenzene	80	80	60-140	0.00	13
		Toluene	80	82	60-140	-2.47	13
		Trichloroethene	98	96	60-140	-2.06	14
		Dibromofluorobenzene (surrogate)	90	92	80-120	2.20	NA
		1,2-Dichloroethane-d4 (surrogate)	84	86	80-120	2.35	NA
		Toluene-d8 (surrogate)	84	86	80-120	2.35	NA
		Bromofluorobenzene (surrogate)	76*	82	80-120	7.59	NA
ACSGWMW09R20	MW09R	1,1-Dichloroethene	96	92	60-140	-4.26	14
		Benzene	88	86	60-140	-2.30	11
		Chlorobenzene	90	90	60-140	0.00	13
		Toluene	90	88	60-140	-2.25	13
		Trichloroethene	110	110	60-140	0.00	14
		Dibromofluorobenzene (surrogate)	102	100	80-120	1.98	NA
		1,2-Dichloroethane-d4 (surrogate)	86	85	80-120	1.17	NA
		Toluene-d8 (surrogate)	90	90	80-120	0.00	NA
		Bromofluorobenzene (surrogate)	96	94	80-120	-2.11	NA

**Notes:**

% Rec - Percent Recovery

NA - Not Applicable

RPD - Relative Percent Difference

\* The matrix spike recovery for Bromofluorobenzene was below the control limit, however, one surrogate is allowed to be out as long as recovery > 10%.

**Table 5**  
**LCS and LCS Duplicate RPD and Recovery Summary**  
**Round 20**

Laboratory Identification	Sample Delivery Group	Compound	Laboratory Spike (% Rec)	Laboratory Spike Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD (%)	Control Limits (%)
VTVLCS	I2231 J2231	1,1-Dichloroethene	89	NA	60-140	NA	NA
		Benzene	99	NA	60-140	NA	NA
		Trichloroethene	110	NA	60-140	NA	NA
		Toluene	104	NA	60-140	NA	NA
		Chlorobenzene	102	NA	60-140	NA	NA
		Dibromofluoromethane (surrogate)	86	NA	80-120	NA	NA
		1,2-Dichloroethane-d4 (surrogate)	90	NA	80-120	NA	NA
		Toluene-d8 (surrogate)	89	NA	80-120	NA	NA
		Bromofluorobenzene(surrogate)	79*	NA	80-120	NA	NA
VSYLCS	I2231 J2231	1,1-Dichloroethene	92	NA	60-140	NA	NA
		Benzene	87	NA	60-140	NA	NA
		Trichloroethene	92	NA	60-140	NA	NA
		Toluene	87	NA	60-140	NA	NA
		Chlorobenzene	88	NA	60-140	NA	NA
		Dibromofluoromethane (surrogate)	101	NA	80-120	NA	NA
		1,2-Dichloroethane-d4 (surrogate)	96	NA	80-120	NA	NA
		Toluene-d8 (surrogate)	97	NA	80-120	NA	NA
		Bromofluorobenzene(surrogate)	96	NA	80-120	NA	NA
VTSLCS	I2231 J2231	1,1-Dichloroethene	76	NA	60-140	NA	NA
		Benzene	88	NA	60-140	NA	NA
		Trichloroethene	100	NA	60-140	NA	NA
		Toluene	92	NA	60-140	NA	NA
		Chlorobenzene	92	NA	60-140	NA	NA
		Dibromofluoromethane (surrogate)	94	NA	80-120	NA	NA
		1,2-Dichloroethane-d4 (surrogate)	90	NA	80-120	NA	NA
		Toluene-d8 (surrogate)	88	NA	80-120	NA	NA
		Bromofluorobenzene(surrogate)	78*	NA	80-120	NA	NA

**Table 5**  
**LCS and LCS Duplicate RPD and Recovery Summary**  
**Round 20**

Laboratory Identification	Sample Delivery Group	Compound	Laboratory Spike (% Rec)	Laboratory Spike Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD (%)	Control Limits (%)
VSXLCS	I2231	1,1-Dichloroethene	99	NA	60-140	NA	NA
		Benzene	101	NA	60-140	NA	NA
		Trichloroethene	118	NA	60-140	NA	NA
		Toluene	104	NA	60-140	NA	NA
		Chlorobenzene	103	NA	60-140	NA	NA
		Dibromofluoromethane (surrogate)	95	NA	80-120	NA	NA
		1,2-Dichloroethane-d4 (surrogate)	91	NA	80-120	NA	NA
		Toluene-d8 (surrogate)	112	NA	80-120	NA	NA
		Bromofluorobenzene(surrogate)	114	NA	80-120	NA	NA

**Notes:**

% Rec - Percent Recovery

NA - Not Applicable

RPD - Relative Percent Difference

\* The spike recovery for Bromofluorobenzene was below the control limit, however, one surrogates is allowed to be out as long as recovery > 10%.

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

<b>Method</b>	<b>Sample Identification</b>	<b>Location ID</b>	<b>Collection Date</b>	<b>Laboratory Sample Identification</b>	<b>Compound</b>	<b>Percent Recovery</b>
SW8260B	ACSGWMW1120	MW11	9/10/2002	I2231-1	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	104 99 114 121*
	ACSGWMW1720	MW17	9/10/2002	I2231-2	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	110 107 115 125*
	ACSGWMW2820	MW28	9/10/2002	I2231-3	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	99 90 114 121*
	ACSGWDUP0120	DUP01	9/10/2002	I2231-4	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	96 83 84 84
	ACSGWMW5120	MW51	9/10/2002	I2231-5	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	93 84 85 77*
	ACSGWMW3020	MW30	9/10/2002	I2231-6	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	96 85 86 79*
	ACSGWMW3320	MW33	9/10/2002	I2231-7	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	97 85 86 81
	ACSGWMW5620	MW56	9/10/2002	I2231-8	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	98 94 86 83
	ACSGWMW5620DL	MW56	9/10/2002	I2231-8	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 90 92 94
	ACSGWMW54R20	MW54R	9/11/2002	I2231-9	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	101 85 91 94
	ACSGWMW5520	MW55	9/11/2002	I2231-10	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 88 90 91
	ACSGWMW0820	MW08	9/11/2002	I2231-11	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 87 91 88

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

<b>Method</b>	<b>Sample Identification</b>	<b>Location ID</b>	<b>Collection Date</b>	<b>Laboratory Sample Identification</b>	<b>Compound</b>	<b>Percent Recovery</b>
SW8260B	ACSGWMW3120	MW31	9/11/2002	I2231-12	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 88 90 89
	ACSGWMW3220	MW32	9/11/2002	I2231-13	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	105 88 90 92
	ACSGWDUP0320	DUP03	9/11/2002	I2231-14	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 84 90 90
	ACSGWEB0220	EB02	9/11/2002	I2231-15	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 85 91 90
	ACSGWMW1920	MW19	9/11/2002	I2231-16	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	103 86 92 97
	ACSGWTB0120	TB01	9/11/2002	I2231-17	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	104 86 91 94
	ACSGWMW1420	MW14	9/11/2002	I2231-18	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	103 87 92 92
	ACSGWMW2920	MW29	9/11/2002	I2231-19	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 84 92 95
	ACSGWMW09R20	MW09R	9/11/2002	I2231-20	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 86 90 96
	ACSGWMW09R20DL	MW09R	9/11/2002	I2231-20	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	82 71* 79* 81
	ACSGWMW2320	MW23	9/10/2002	J2231-1	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	90 84 84 79*
	ACSGWMW5220	MW52	9/10/2002	J2231-2	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	90 81 84 80

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

<b>Method</b>	<b>Sample Identification</b>	<b>Location ID</b>	<b>Collection Date</b>	<b>Laboratory Sample Identification</b>	<b>Compound</b>	<b>Percent Recovery</b>
SW8260B	ACSGWDUP0220	DUP02	9/10/2002	J2231-3	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	89 79* 82 76*
	ACSGWMW5320	MW53	9/10/2002	J2231-4	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	93 83 84 78*
	ACSGWMW4220	MW42	9/10/2002	J2231-5	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	94 84 85 79*
	ACSGWMW4320	MW43	9/10/2002	J2231-6	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	96 86 85 81
	ACSGWMW4420	MW44	9/10/2002	J2231-7	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	95 84 85 82
	ACSGWEB0120	EB01	9/10/2002	J2231-8	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	95 84 84 78*
	ACSGWMW1520	MW15	9/11/2002	J2231-9	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	97 85 86 77*
	ACSGWMW4520	MW45	9/11/2002	J2231-10	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	93 82 81 76*
	ACSGWMW0620	MW06	9/23/2002	J2231-11	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	84 77* 83 84
	ACSGWMW10C20	MW10	9/23/2002	J2231-12	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	82 82 83 85
	ACSGWMW4820	MW48	9/23/2002	J2231-13	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	83 94 81 87
	ACSGWMW4920	MW49	9/23/2002	J2231-14	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	84 86 83 84
	ACSGWORCPZ10207	ORCPZ102	9/23/2002	J2231-16	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	81 88 82 89

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

<b>Method</b>	<b>Sample Identification</b>	<b>Location ID</b>	<b>Collection Date</b>	<b>Laboratory Sample Identification</b>	<b>Compound</b>	<b>Percent Recovery</b>
SW8260B	ACSGWTB0220	TB02	9/23/2002	J2231-18	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	87 78* 81 86
	ACSGWORCEB0407	ORCEB04	9/23/2002	J2231-19	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	85 74* 81 82
	ACSGWEB0320	EB03	9/23/2002	J2231-17	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	93 81 79* 77*
	ACSGWORCPZ10307	ORCPZ103	9/23/2002	J2231-15	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	95 86 83 78*
	ACSGWMW10C20DL	MW10C	9/23/2002	J2231-12	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	96 86 82 80
	ACSGWMW4820DL	MW48	9/23/2002	J2231-13	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	96 85 80 78*
	ACSGWMW4920DL	MW49	9/23/2002	J2231-14	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	97 85 81 81
	ACSGWORCPZ10207 DL	ORCPZ102	9/23/2002	J2231-16	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	102 94 99 106

**Notes:**

\* Indicates that the percent recovery lies outside of the acceptance criteria outlined in the QAPP.

One of the four surrogate recoveries is allowed to be out of the acceptance criteria. Samples that have more than two surrogate recoveries outside of the acceptance criteria have qualified results as discussed in Section 6 of this report.

**Table 7**  
**Percent Completeness**  
**Round 20**

<b>Method</b>	<b>Matrix</b>	<b>Compound</b>	<b>Total Number of Samples</b>	<b>Number Rejected</b>	<b>Percent Complete (%)</b>
SW8260B	Water	1,1,1-Trichloroethane	39	0	100
		1,1,2,2-Tetrachloroethane	39	0	100
		1,1,2-Trichloroethane	39	0	100
		1,1-Dichloroethane	39	0	100
		1,1-Dichloroethene	39	0	100
		1,2-Dichloroethane	39	0	100
		1,2-Dichloropropane	39	0	100
		2-Butanone (MEK)	39	0	100
		2-Hexanone	39	0	100
		4-Methyl-2-pentanone (MIBK)	39	0	100
		Acetone	39	0	100
		Benzene	39	0	100
		Bromodichloromethane	39	0	100
		Bromoform	39	0	100
		Bromomethane	39	0	100
		Carbon Disulfide	39	0	100
		Carbon Tetrachloride	39	0	100
		Chlorobenzene	39	0	100
		Chloroethane	39	0	100
		Chloroform	39	0	100
		Chloromethane	39	0	100
		cis-1,2-Dichloroethene	39	0	100
		cis-1,3-Dichloropropene	39	0	100
		Dibromochloromethane	39	0	100
		Ethylbenzene	39	0	100
		Methylene chloride	39	0	100
		Styrene	39	0	100
		Tetrachloroethene	39	0	100
		Toluene	39	0	100
		trans-1,2-Dichloroethene	39	0	100
		trans-1,3-Dichloropropene	39	0	100
		Trichloroethene	39	0	100
		Vinyl chloride	39	0	100
		Xylenes (total)	39	0	100
		1,2,4-Trichlorobenzene	39	0	100
		1,2-Dichlorobenzene	39	0	100
		1,3-Dichlorobenzene	39	0	100
		1,4-Dichlorobenzene	39	0	100

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW06-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-11

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-11B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	5	U
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW06-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-11

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-11B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/27/02

Soil Extract Volume: \_\_\_\_\_ (uL)

Dilution Factor: 1.0

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.9	JB
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW11-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-1

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-1A59

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/21/02

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	1	JB	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	5	U	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U	
67-64-1-----	Acetone _____	5	JB	
75-09-2-----	Methylene Chloride _____	5	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	13	U	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	0.9	JB	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	2	JB	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW11-20

Lab Name: COMPUCHEM	Method:	
Lab Code: LIBRTY	Case No.:	SAS No.: SDG No.: I2231
Matrix: (soil/water) WATER		Lab Sample ID: I2231-1
Sample wt/vol: 5 (g/ml) ML		Lab File ID: I2231-1A59
Level: (low/med) LOW		Date Received: 09/12/02
% Moisture: not dec.		Date Analyzed: 09/21/02
GC Column: ZB-624	ID: 0.32 (mm)	Dilution Factor: 1.0
Soil Extract Volume: _____ (uL)		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene		2	JB
100-41-4-----	Ethylbenzene		5	U
100-42-5-----	Styrene		2	JB
75-25-2-----	Bromoform		5	U
98-82-8-----	Isopropyl Benzene		2	JB
79-34-5-----	1,1,2,2-Tetrachloroethane		5	U
541-73-1-----	1,3-Dichlorobenzene		5	U
106-46-7-----	1,4-Dichlorobenzene		5	U
95-50-1-----	1,2-Dichlorobenzene		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----	1,2,4-Trichlorobenzene		1	JB
1330-20-7-----	Xylene (total)		5	U
79-20-9-----	Methyl acetate		5	U
110-82-7-----	Cyclohexane		5	U
108-87-2-----	Methylcyclohexane		2	J

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW14-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-18

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-18B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	5	U
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW14-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-18

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-18B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	5	U	
100-41-4-----	Ethylbenzene	5	U	
100-42-5-----	Styrene	5	U	
75-25-2-----	Bromoform	5	U	
98-82-8-----	Isopropyl Benzene	5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U	
541-73-1-----	1,3-Dichlorobenzene	5	U	
106-46-7-----	1,4-Dichlorobenzene	5	U	
95-50-1-----	1,2-Dichlorobenzene	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1-----	1,2,4-Trichlorobenzene	5	U	
1330-20-7-----	Xylene (total)	5	U	
79-20-9-----	Methyl acetate	5	U	
110-82-7-----	Cyclohexane	5	U	
108-87-2-----	Methylcyclohexane	5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW15-20

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-9

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-9A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec.

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	2	J
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	3	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	1	J
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	_____
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW15-20
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Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-9

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-9A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

108-90-7-----	Chlorobenzene_____		5	U
100-41-4-----	Ethylbenzene_____		5	U
100-42-5-----	Styrene_____		5	U
75-25-2-----	Bromoform_____		5	U
98-82-8-----	Isopropyl Benzene_____		5	U
79-34-5-----	1,1,2,2-Tetrachloroethane_____		5	U
541-73-1-----	1,3-Dichlorobenzene_____		5	U
106-46-7-----	1,4-Dichlorobenzene_____		5	U
95-50-1-----	1,2-Dichlorobenzene_____		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane_____		5	U
120-82-1-----	1,2,4-Trichlorobenzene_____		5	U
1330-20-7-----	Xylene (total)_____		5	U
79-20-9-----	Methyl acetate_____		5	U
110-82-7-----	Cyclohexane_____		5	U
108-87-2-----	Methylcyclohexane_____		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW17-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-2

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-2A59

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/21/02

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	2	JB
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	7	JB
75-09-2-----	Methylene Chloride _____	6	B
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	2	JB
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	1	J
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW17-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-2

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-2A59

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/21/02

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene _____	5	U
100-41-4-----	Ethylbenzene _____	3	J
100-42-5-----	Styrene _____	2	JB
75-25-2-----	Bromoform _____	5	U
98-82-8-----	Isopropyl Benzene _____	8	B
79-34-5-----	1,1,2,2-Tetrachloroethane _____	5	U
541-73-1-----	1,3-Dichlorobenzene _____	0.8	JB
106-46-7-----	1,4-Dichlorobenzene _____	1	JB
95-50-1-----	1,2-Dichlorobenzene _____	3	JB
96-12-8-----	1,2-Dibromo-3-Chloropropane _____	5	U
120-82-1-----	1,2,4-Trichlorobenzene _____	1	JB
1330-20-7-----	Xylene (total) _____	5	U
79-20-9-----	Methyl acetate _____	5	U
110-82-7-----	Cyclohexane _____	2	J
108-87-2-----	Methylcyclohexane _____	5	J

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW19-20
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-16

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-16B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
		5	U
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	13	_____
75-69-4-----	Trichlorodifluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	2	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	0.8	J
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	_____
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW19-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-16

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-16B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	5	U	
100-41-4-----	Ethylbenzene	5	U	
100-42-5-----	Styrene	5	U	
75-25-2-----	Bromoform	5	U	
98-82-8-----	Isopropyl Benzene	5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U	
541-73-1-----	1,3-Dichlorobenzene	5	U	
106-46-7-----	1,4-Dichlorobenzene	5	U	
95-50-1-----	1,2-Dichlorobenzene	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1-----	1,2,4-Trichlorobenzene	5	U	
1330-20-7-----	Xylene (total)	5	U	
79-20-9-----	Methyl acetate	5	U	
110-82-7-----	Cyclohexane	5	U	
108-87-2-----	Methylcyclohexane	5	U	

FORM I  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW42-20

Lab Code: LIBRTY	Case No.:	SAS No.:	SDG No.: J2231
Matrix: (soil/water)	WATER	Lab Sample ID:	J2231-5
Sample wt/vol:	5 (g/ml) ML	Lab File ID:	J2231-5A52
Level: (low/med)	LOW	Date Received:	09/12/02
% Moisture: not dec.		Date Analyzed:	09/24/02
GC Column: EQUITY624	ID: 0.53 (mm)	Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane	5	U	
74-87-3-----	Chloromethane	5	U	
75-01-4-----	Vinyl Chloride	5	U	
74-83-9-----	Bromomethane	5	U	
75-00-3-----	Chloroethane	5	U	
75-69-4-----	Trichlorofluoromethane	5	U	
75-35-4-----	1,1-Dichloroethene	5	U	
75-15-0-----	Carbon disulfide	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U	
67-64-1-----	Acetone	13	U	
75-09-2-----	Methylene Chloride	2	JB	
156-60-5-----	trans-1,2-Dichloroethene	5	U	
1634-04-4-----	Methyl-tert-butyl ether	5	U	
75-34-3-----	1,1-Dichloroethane	5	U	
156-59-2-----	cis-1,2-Dichloroethene	5	U	
78-93-3-----	2-butanone	13	U	
67-66-3-----	Chloroform	5	U	
71-55-6-----	1,1,1-Trichloroethane	5	U	
56-23-5-----	Carbon Tetrachloride	5	U	
71-43-2-----	Benzene	5	U	
107-06-2-----	1,2-Dichloroethane	5	U	
79-01-6-----	Trichloroethene	5	U	
78-87-5-----	1,2-Dichloropropane	5	U	
75-27-4-----	Bromodichloromethane	5	U	
10061-01-5-----	cis-1,3-Dichloropropene	5	U	
108-10-1-----	4-Methyl-2-pentanone	13	U	
108-88-3-----	Toluene	5	U	
10061-02-6-----	trans-1,3-Dichloropropene	5	U	
79-00-5-----	1,1,2-Trichloroethane	5	U	
127-18-4-----	Tetrachloroethene	5	U	
591-78-6-----	2-hexanone	13	U	
124-48-1-----	Dibromochloromethane	5	U	
106-93-4-----	1,2-Dibromoethane	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW42-20

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-5

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-5A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene_____	5	U
100-41-4-----	Ethylbenzene_____	5	U
100-42-5-----	Styrene_____	5	U
75-25-2-----	Bromoform_____	5	U
98-82-8-----	Isopropyl Benzene_____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane_____	5	U
541-73-1-----	1,3-Dichlorobenzene_____	5	U
106-46-7-----	1,4-Dichlorobenzene_____	5	U
95-50-1-----	1,2-Dichlorobenzene_____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane_____	5	U
120-82-1-----	1,2,4-Trichlorobenzene_____	5	U
1330-20-7-----	Xylene (total)_____	5	U
79-20-9-----	Methyl acetate_____	5	U
110-82-7-----	Cyclohexane_____	5	U
108-87-2-----	Methylcyclohexane_____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW43-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-6

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-6A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec.

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	3	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	U
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW43-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-6

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-6A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
---------	----------	---	------	---

108-90-7-----	Chlorobenzene_____		5	U
100-41-4-----	Ethylbenzene_____		5	U
100-42-5-----	Styrene_____		5	U
75-25-2-----	Bromoform_____		5	U
98-82-8-----	Isopropyl Benzene_____		5	U
79-34-5-----	1,1,2,2-Tetrachloroethane_____		5	U
541-73-1-----	1,3-Dichlorobenzene_____		5	U
106-46-7-----	1,4-Dichlorobenzene_____		5	U
95-50-1-----	1,2-Dichlorobenzene_____		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane_____		5	U
120-82-1-----	1,2,4-Trichlorobenzene_____		5	U
1330-20-7-----	Xylene (total)_____		5	U
79-20-9-----	Methyl acetate_____		5	U
110-82-7-----	Cyclohexane_____		5	U
108-87-2-----	Methylcyclohexane_____		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM	Method: 8260B	GW-MW44-20
Lab Code: LIBRTY	Case No.:	SAS No.:
Matrix: (soil/water) WATER		Lab Sample ID: J2231-7
Sample wt/vol: 5	(g/ml) ML	Lab File ID: J2231-7A52
Level: (low/med)	LOW	Date Received: 09/12/02
% Moisture: not dec.		Date Analyzed: 09/24/02
GC Column: EQUITY624	ID: 0.53 (mm)	Dilution Factor: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	U
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW44-20
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Lab Name: COMPUCHEM                          Method: 8260B

Lab Code: LIBRTY      Case No.:                          SAS No.:                          SDG No.: J2231

Matrix: (soil/water) WATER                          Lab Sample ID: J2231-7

Sample wt/vol: 5 (g/ml) ML                          Lab File ID: J2231-7A52

Level: (low/med) LOW                                  Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_                          Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)                          Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)                          Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW45-20

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-10

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-10A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	13	_____
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	8	_____
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW45-20
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Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-10

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-10A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	10		
100-41-4-----	Ethylbenzene	5	U	
100-42-5-----	Styrene	5	U	
75-25-2-----	Bromoform	5	U	
98-82-8-----	Isopropyl Benzene	1	J	
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U	
541-73-1-----	1,3-Dichlorobenzene	5	U	
106-46-7-----	1,4-Dichlorobenzene	5	U	
95-50-1-----	1,2-Dichlorobenzene	1	J	
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1-----	1,2,4-Trichlorobenzene	5	U	
1330-20-7-----	Xylene (total)	5	U	
79-20-9-----	Methyl acetate	5	U	
110-82-7-----	Cyclohexane	1	J	
108-87-2-----	Methylcyclohexane	2	J	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW48-20

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-13

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-13B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/27/02

Soil Extract Volume: \_\_\_\_\_ (uL)

Dilution Factor: 1.0  
Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	32	_____
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	2	J
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	850	E
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW48-20

Lab Name:	COMPUCHEM	Method:	8260B
Lab Code:	LIBRTY	Case No.:	SAS No.: SDG No.: J2231
Matrix:	(soil/water) WATER	Lab Sample ID: J2231-13	
Sample wt/vol:	5 (g/ml)	ML	Lab File ID: J2231-13B52
Level:	(low/med)	LOW	Date Received: 09/24/02
% Moisture:	not dec.		Date Analyzed: 09/27/02
GC Column:	EQUITY624	ID: 0.53 (mm)	Dilution Factor: 1.0
Soil Extract Volume:	(uL)		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM	Method: 8260B	GW-MW48-20DL
Lab Code: LIBRTY	Case No.:	SAS No.:
Matrix: (soil/water) WATER		SDG No.: J2231
Sample wt/vol: 5	(g/ml) ML	Lab Sample ID: J2231-13
Level: (low/med)	LOW	Lab File ID: J2231-13D2B52
% Moisture: not dec.		Date Received: 09/24/02
GC Column: EQUITY624	ID: 0.53 (mm)	Date Analyzed: 09/27/02
Soil Extract Volume: _____ (uL)		Dilution Factor: 10.0
		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane	50	U
74-87-3-----	Chloromethane	50	U
75-01-4-----	Vinyl Chloride	50	U
74-83-9-----	Bromomethane	50	U
75-00-3-----	Chloroethane	31	DJ
75-69-4-----	Trichlorofluoromethane	50	U
75-35-4-----	1,1-Dichloroethene	50	U
75-15-0-----	Carbon disulfide	50	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	50	U
67-64-1-----	Acetone	130	U
75-09-2-----	Methylene Chloride	19	DJ
156-60-5-----	trans-1,2-Dichloroethene	50	U
1634-04-4-----	Methyl-tert-butyl ether	50	U
75-34-3-----	1,1-Dichloroethane	50	U
156-59-2-----	cis-1,2-Dichloroethene	50	U
78-93-3-----	2-butanone	130	U
67-66-3-----	Chloroform	50	U
71-55-6-----	1,1,1-Trichloroethane	50	U
56-23-5-----	Carbon Tetrachloride	50	U
71-43-2-----	Benzene	1300	D
107-06-2-----	1,2-Dichloroethane	50	U
79-01-6-----	Trichloroethene	50	U
78-87-5-----	1,2-Dichloropropane	50	U
75-27-4-----	Bromodichloromethane	50	U
10061-01-5-----	cis-1,3-Dichloropropene	50	U
108-10-1-----	4-Methyl-2-pentanone	130	U
108-88-3-----	Toluene	50	U
10061-02-6-----	trans-1,3-Dichloropropene	50	U
79-00-5-----	1,1,2-Trichloroethane	50	U
127-18-4-----	Tetrachloroethene	50	U
591-78-6-----	2-hexanone	130	U
124-48-1-----	Dibromochloromethane	50	U
106-93-4-----	1,2-Dibromoethane	50	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW48-20DL
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Lab Name: COMPUCHEM                          Method: 8260B

Lab Code: LIBRTY      Case No.:                          SAS No.:                          SDG No.: J2231

Matrix: (soil/water) WATER                          Lab Sample ID: J2231-13

Sample wt/vol: 5      (g/ml) ML                          Lab File ID: J2231-13D2B52

Level: (low/med) LOW                          Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_                          Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)                          Dilution Factor: 10.0

Soil Extract Volume: \_\_\_\_\_ (uL)                          Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	UG/L	Q
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108-90-7-----Chlorobenzene		50	U	
100-41-4-----Ethylbenzene		50	U	
100-42-5-----Styrene		50	U	
75-25-2-----Bromoform		50	U	
98-82-8-----Isopropyl Benzene		50	U	
79-34-5-----1,1,2,2-Tetrachloroethane		50	U	
541-73-1-----1,3-Dichlorobenzene		50	U	
106-46-7-----1,4-Dichlorobenzene		50	U	
95-50-1-----1,2-Dichlorobenzene		50	U	
96-12-8-----1,2-Dibromo-3-Chloropropane		50	U	
120-82-1-----1,2,4-Trichlorobenzene		50	U	
1330-20-7-----Xylene (total)		50	U	
79-20-9-----Methyl acetate		50	U	
110-82-7-----Cyclohexane		50	U	
108-87-2-----Methylcyclohexane		50	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW49-20

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-14

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-14B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	60	
75-69-4-----	Trichlorodifluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	5	U
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	620	E
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW49-20
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Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-14

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-14B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW49-20DL
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-14

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-14DB52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec.

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	25	U
74-87-3-----	Chloromethane	25	U
75-01-4-----	Vinyl Chloride	25	U
74-83-9-----	Bromomethane	25	U
75-00-3-----	Chloroethane	62	D
75-69-4-----	Trichlorofluoromethane	25	U
75-35-4-----	1,1-Dichloroethene	25	U
75-15-0-----	Carbon disulfide	25	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	25	U
67-64-1-----	Acetone	63	U
75-09-2-----	Methylene Chloride	9	DJ
156-60-5-----	trans-1,2-Dichloroethene	25	U
1634-04-4-----	Methyl-tert-butyl ether	25	U
75-34-3-----	1,1-Dichloroethane	25	U
156-59-2-----	cis-1,2-Dichloroethene	25	U
78-93-3-----	2-butanone	63	U
67-66-3-----	Chloroform	25	U
71-55-6-----	1,1,1-Trichloroethane	25	U
56-23-5-----	Carbon Tetrachloride	25	U
71-43-2-----	Benzene	570	D
107-06-2-----	1,2-Dichloroethane	25	U
79-01-6-----	Trichloroethene	25	U
78-87-5-----	1,2-Dichloropropane	25	U
75-27-4-----	Bromodichloromethane	25	U
10061-01-5-----	cis-1,3-Dichloropropene	25	U
108-10-1-----	4-Methyl-2-pentanone	63	U
108-88-3-----	Toluene	25	U
10061-02-6-----	trans-1,3-Dichloropropene	25	U
79-00-5-----	1,1,2-Trichloroethane	25	U
127-18-4-----	Tetrachloroethene	25	U
591-78-6-----	2-hexanone	63	U
124-48-1-----	Dibromochloromethane	25	U
106-93-4-----	1,2-Dibromoethane	25	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW49-20DL
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Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-14

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-14DB52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

108-90-7-----	Chlorobenzene	25	U
100-41-4-----	Ethylbenzene	25	U
100-42-5-----	Styrene	25	U
75-25-2-----	Bromoform	25	U
98-82-8-----	Isopropyl Benzene	25	U
79-34-5-----	1,1,2,2-Tetrachloroethane	25	U
541-73-1-----	1,3-Dichlorobenzene	25	U
106-46-7-----	1,4-Dichlorobenzene	25	U
95-50-1-----	1,2-Dichlorobenzene	25	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	25	U
120-82-1-----	1,2,4-Trichlorobenzene	25	U
1330-20-7-----	Xylene (total)	25	U
79-20-9-----	Methyl acetate	25	U
110-82-7-----	Cyclohexane	25	U
108-87-2-----	Methylcyclohexane	25	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW08-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-11

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-11RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	5	U
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW08-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-11

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-11RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene _____	5	U
100-41-4-----	Ethylbenzene _____	5	U
100-42-5-----	Styrene _____	5	U
75-25-2-----	Bromoform _____	5	U
98-82-8-----	Isopropyl Benzene _____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane _____	5	U
541-73-1-----	1,3-Dichlorobenzene _____	5	U
106-46-7-----	1,4-Dichlorobenzene _____	5	U
95-50-1-----	1,2-Dichlorobenzene _____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane _____	5	U
120-82-1-----	1,2,4-Trichlorobenzene _____	5	U
1330-20-7-----	Xylene (total) _____	5	U
79-20-9-----	Methyl acetate _____	5	U
110-82-7-----	Cyclohexane _____	5	U
108-87-2-----	Methylcyclohexane _____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW09R-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-20

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-20B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	220	E	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	0.8	J	
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U	
67-64-1-----	Acetone _____	13	U	
75-09-2-----	Methylene Chloride _____	3	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	13	U	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	9		
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW09R-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-20

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-20B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene _____	5	U
100-41-4-----	Ethylbenzene _____	5	U
100-42-5-----	Styrene _____	5	U
75-25-2-----	Bromoform _____	5	U
98-82-8-----	Isopropyl Benzene _____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane _____	5	U
541-73-1-----	1,3-Dichlorobenzene _____	5	U
106-46-7-----	1,4-Dichlorobenzene _____	5	U
95-50-1-----	1,2-Dichlorobenzene _____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane _____	5	U
120-82-1-----	1,2,4-Trichlorobenzene _____	5	U
1330-20-7-----	Xylene (total) _____	5	U
79-20-9-----	Methyl acetate _____	5	U
110-82-7-----	Cyclohexane _____	5	U
108-87-2-----	Methylcyclohexane _____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM	Method:	GW-MW09R-20DL
Lab Code: LIBRTY	Case No.:	SAS No.: SDG No.: I2231
Matrix: (soil/water) WATER		Lab Sample ID: I2231-20
Sample wt/vol: 5 (g/ml)	ML	Lab File ID: I2231-20DB52
Level: (low/med) LOW		Date Received: 09/12/02
% Moisture: not dec.		Date Analyzed: 09/25/02
GC Column: EQUITY624 ID: 0.53 (mm)		Dilution Factor: 1.4
Soil Extract Volume: _____ (uL)		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	7	U
74-87-3-----	Chloromethane _____	7	U
75-01-4-----	Vinyl Chloride _____	7	U
74-83-9-----	Bromomethane _____	7	U
75-00-3-----	Chloroethane _____	130	D
75-69-4-----	Trichlorodifluoromethane _____	7	U
75-35-4-----	1,1-Dichloroethene _____	7	U
75-15-0-----	Carbon disulfide _____	7	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	7	U
67-64-1-----	Acetone _____	18	U
75-09-2-----	Methylene Chloride _____	3	DJ
156-60-5-----	trans-1,2-Dichloroethene _____	7	U
1634-04-4-----	Methyl-tert-butyl ether _____	7	U
75-34-3-----	1,1-Dichloroethane _____	7	U
156-59-2-----	cis-1,2-Dichloroethene _____	7	U
78-93-3-----	2-butanone _____	18	U
67-66-3-----	Chloroform _____	7	U
71-55-6-----	1,1,1-Trichloroethane _____	7	U
56-23-5-----	Carbon Tetrachloride _____	7	U
71-43-2-----	Benzene _____	6	DJ
107-06-2-----	1,2-Dichloroethane _____	7	U
79-01-6-----	Trichloroethene _____	7	U
78-87-5-----	1,2-Dichloropropane _____	7	U
75-27-4-----	Bromodichloromethane _____	7	U
10061-01-5-----	cis-1,3-Dichloropropene _____	7	U
108-10-1-----	4-Methyl-2-pentanone _____	18	U
108-88-3-----	Toluene _____	7	U
10061-02-6-----	trans-1,3-Dichloropropene _____	7	U
79-00-5-----	1,1,2-Trichloroethane _____	7	U
127-18-4-----	Tetrachloroethene _____	7	U
591-78-6-----	2-hexanone _____	18	U
124-48-1-----	Dibromochloromethane _____	7	U
106-93-4-----	1,2-Dibromoethane _____	7	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW09R-20DL
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-20

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-20DB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.4

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
		7	U
108-90-7-----	Chlorobenzene_____	7	U
100-41-4-----	Ethylbenzene_____	7	U
100-42-5-----	Styrene_____	7	U
75-25-2-----	Bromoform_____	7	U
98-82-8-----	Isopropyl Benzene_____	7	U
79-34-5-----	1,1,2,2-Tetrachloroethane_____	7	U
541-73-1-----	1,3-Dichlorobenzene_____	7	U
106-46-7-----	1,4-Dichlorobenzene_____	7	U
95-50-1-----	1,2-Dichlorobenzene_____	7	U
96-12-8-----	1,2-Dibromo-3-Chloropropane_____	7	U
120-82-1-----	1,2,4-Trichlorobenzene_____	1	DJB
1330-20-7-----	Xylene (total)_____	7	U
79-20-9-----	Methyl acetate_____	7	U
110-82-7-----	Cyclohexane_____	7	U
108-87-2-----	Methylcyclohexane_____	7	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name:	COMPUCHEM	Method:	8260B	GW-MW10C-20
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Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-12

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-12B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/27/02  
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	0.5	J
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	350	E
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	5	U
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	420	E
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW10C-20

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-12

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-12B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/27/02  
Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	5	U	
100-41-4-----	Ethylbenzene	5	U	
100-42-5-----	Styrene	5	U	
75-25-2-----	Bromoform	5	U	
98-82-8-----	Isopropyl Benzene	5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U	
541-73-1-----	1,3-Dichlorobenzene	5	U	
106-46-7-----	1,4-Dichlorobenzene	5	U	
95-50-1-----	1,2-Dichlorobenzene	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1-----	1,2,4-Trichlorobenzene	5	U	
1330-20-7-----	Xylene (total)	5	U	
79-20-9-----	Methyl acetate	5	U	
110-82-7-----	Cyclohexane	5	U	
108-87-2-----	Methylcyclohexane	5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW10C-20DL

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-12

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-12DB52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/27/02  
Dilution Factor: 3.3

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	17	U	
74-87-3-----	Chloromethane _____	17	U	
75-01-4-----	Vinyl Chloride _____	17	U	
74-83-9-----	Bromomethane _____	17	U	
75-00-3-----	Chloroethane _____	380	D	
75-69-4-----	Trichlorofluoromethane _____	17	U	
75-35-4-----	1,1-Dichloroethene _____	17	U	
75-15-0-----	Carbon disulfide _____	17	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	17	U	
67-64-1-----	Acetone _____	42	U	
75-09-2-----	Methylene Chloride _____	14	DJ	
156-60-5-----	trans-1,2-Dichloroethene _____	17	U	
1634-04-4-----	Methyl-tert-butyl ether _____	17	U	
75-34-3-----	1,1-Dichloroethane _____	17	U	
156-59-2-----	cis-1,2-Dichloroethene _____	17	U	
78-93-3-----	2-butanone _____	42	U	
67-66-3-----	Chloroform _____	17	U	
71-55-6-----	1,1,1-Trichloroethane _____	17	U	
56-23-5-----	Carbon Tetrachloride _____	17	U	
71-43-2-----	Benzene _____	370	D	
107-06-2-----	1,2-Dichloroethane _____	17	U	
79-01-6-----	Trichloroethene _____	17	U	
78-87-5-----	1,2-Dichloropropane _____	17	U	
75-27-4-----	Bromodichloromethane _____	17	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	17	U	
108-10-1-----	4-Methyl-2-pentanone _____	42	U	
108-88-3-----	Toluene _____	17	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	17	U	
79-00-5-----	1,1,2-Trichloroethane _____	17	U	
127-18-4-----	Tetrachloroethene _____	17	U	
591-78-6-----	2-hexanone _____	42	U	
124-48-1-----	Dibromochloromethane _____	17	U	
106-93-4-----	1,2-Dibromoethane _____	17	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW10C-20DL

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-12

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-12DB52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 3.3

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene	17	U
100-41-4-----	Ethylbenzene	17	U
100-42-5-----	Styrene	17	U
75-25-2-----	Bromoform	17	U
98-82-8-----	Isopropyl Benzene	17	U
79-34-5-----	1,1,2,2-Tetrachloroethane	17	U
541-73-1-----	1,3-Dichlorobenzene	17	U
106-46-7-----	1,4-Dichlorobenzene	17	U
95-50-1-----	1,2-Dichlorobenzene	17	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	17	U
120-82-1-----	1,2,4-Trichlorobenzene	17	U
1330-20-7-----	Xylene (total)	17	U
79-20-9-----	Methyl acetate	17	U
110-82-7-----	Cyclohexane	17	U
108-87-2-----	Methylcyclohexane	17	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW23-20

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-1

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-1A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	1	J
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	U
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW23-20
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-1

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-1A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	1	JB
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW28-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-3

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-3A59

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/21/02

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	2	JB
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoropropane _____	5	U
67-64-1-----	Acetone _____	7	JB
75-09-2-----	Methylene Chloride _____	4	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	2	JB
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW28-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-3

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-3A59

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/21/02

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	5	U	
100-41-4-----	Ethylbenzene	5	U	
100-42-5-----	Styrene	1	JB	
75-25-2-----	Bromoform	5	U	
98-82-8-----	Isopropyl Benzene	1	JB	
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U	
541-73-1-----	1,3-Dichlorobenzene	5	U	
106-46-7-----	1,4-Dichlorobenzene	5	U	
95-50-1-----	1,2-Dichlorobenzene	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1-----	1,2,4-Trichlorobenzene	5	U	
1330-20-7-----	Xylene (total)	5	U	
79-20-9-----	Methyl acetate	5	U	
110-82-7-----	Cyclohexane	5	U	
108-87-2-----	Methylcyclohexane	5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW29-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-19

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-19B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	13		
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U	
67-64-1-----	Acetone _____	13	U	
75-09-2-----	Methylene Chloride _____	2	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	13	U	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	1	J	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW29-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-19

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-19B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	5	U	
100-41-4-----	Ethylbenzene	5	U	
100-42-5-----	Styrene	5	U	
75-25-2-----	Bromoform	5	U	
98-82-8-----	Isopropyl Benzene	5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U	
541-73-1-----	1,3-Dichlorobenzene	5	U	
106-46-7-----	1,4-Dichlorobenzene	5	U	
95-50-1-----	1,2-Dichlorobenzene	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U	
120-82-1-----	1,2,4-Trichlorobenzene	5	U	
1330-20-7-----	Xylene (total)	5	U	
79-20-9-----	Methyl acetate	5	U	
110-82-7-----	Cyclohexane	5	U	
108-87-2-----	Methylcyclohexane	5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW30-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-6

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-6RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	3	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW30-20
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-6

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-6RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

108-90-7-----	Chlorobenzene _____	5	U
100-41-4-----	Ethylbenzene _____	5	U
100-42-5-----	Styrene _____	5	U
75-25-2-----	Bromoform _____	5	U
98-82-8-----	Isopropyl Benzene _____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane _____	5	U
541-73-1-----	1,3-Dichlorobenzene _____	5	U
106-46-7-----	1,4-Dichlorobenzene _____	5	U
95-50-1-----	1,2-Dichlorobenzene _____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane _____	5	U
120-82-1-----	1,2,4-Trichlorobenzene _____	5	U
1330-20-7-----	Xylene (total) _____	5	U
79-20-9-----	Methyl acetate _____	5	U
110-82-7-----	Cyclohexane _____	5	U
108-87-2-----	Methylcyclohexane _____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW31-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-12

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-12RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorodifluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	2	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	3	J
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW31-20

Lab Name: COMPUCHEM

Method:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-12

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-12RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW32-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-13

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-13B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	5	U	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U	
67-64-1-----	Acetone _____	13	U	
75-09-2-----	Methylene Chloride _____	2	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	3	J	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	5	U	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW32-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-13

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-13B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene		5	U
100-41-4-----	Ethylbenzene		5	U
100-42-5-----	Styrene		5	U
75-25-2-----	Bromoform		5	U
98-82-8-----	Isopropyl Benzene		5	U
79-34-5-----	1,1,2,2-Tetrachloroethane		5	U
541-73-1-----	1,3-Dichlorobenzene		5	U
106-46-7-----	1,4-Dichlorobenzene		5	U
95-50-1-----	1,2-Dichlorobenzene		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----	1,2,4-Trichlorobenzene		5	U
1330-20-7-----	Xylene (total)		5	U
79-20-9-----	Methyl acetate		5	U
110-82-7-----	Cyclohexane		5	U
108-87-2-----	Methylcyclohexane		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW33-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-7

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-7RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	5	U	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U	
67-64-1-----	Acetone _____	13	U	
75-09-2-----	Methylene Chloride _____	3	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	13	U	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	5	U	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW33-20

Lab Name: COMPUCHEM

Method:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-7

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-7RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene_____		5	U
100-41-4-----	Ethylbenzene_____		5	U
100-42-5-----	Styrene_____		5	U
75-25-2-----	Bromoform_____		5	U
98-82-8-----	Isopropyl Benzene_____		5	U
79-34-5-----	1,1,2,2-Tetrachloroethane_____		5	U
541-73-1-----	1,3-Dichlorobenzene_____		5	U
106-46-7-----	1,4-Dichlorobenzene_____		5	U
95-50-1-----	1,2-Dichlorobenzene_____		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane_____		5	U
120-82-1-----	1,2,4-Trichlorobenzene_____		5	U
1330-20-7-----	Xylene (total)_____		5	U
79-20-9-----	Methyl acetate_____		5	U
110-82-7-----	Cyclohexane_____		5	U
108-87-2-----	Methylcyclohexane_____		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-MW51-20

Lab Name: COMPUCHEM

Method:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-5

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-5RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	3	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW51-20
------------

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-5

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-5RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
---------	----------	---	------	---

108-90-7-----	Chlorobenzene_____	5	U	
100-41-4-----	Ethylbenzene_____	5	U	
100-42-5-----	Styrene_____	5	U	
75-25-2-----	Bromoform_____	5	U	
98-82-8-----	Isopropyl Benzene_____	5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane_____	5	U	
541-73-1-----	1,3-Dichlorobenzene_____	5	U	
106-46-7-----	1,4-Dichlorobenzene_____	5	U	
95-50-1-----	1,2-Dichlorobenzene_____	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane_____	5	U	
120-82-1-----	1,2,4-Trichlorobenzene_____	5	U	
1330-20-7-----	Xylene (total)_____	5	U	
79-20-9-----	Methyl acetate_____	5	U	
110-82-7-----	Cyclohexane_____	5	U	
108-87-2-----	Methylcyclohexane_____	5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW52-20
------------

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-2

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-2A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	U
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW52-20

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-2

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-2A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec.

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

108-90-7-----Chlorobenzene		5	U
100-41-4-----Ethylbenzene		5	U
100-42-5-----Styrene		5	U
75-25-2-----Bromoform		5	U
98-82-8-----Isopropyl Benzene		5	U
79-34-5-----1,1,2,2-Tetrachloroethane		5	U
541-73-1-----1,3-Dichlorobenzene		5	U
106-46-7-----1,4-Dichlorobenzene		5	U
95-50-1-----1,2-Dichlorobenzene		5	U
96-12-8-----1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----1,2,4-Trichlorobenzene		5	U
1330-20-7-----Xylene (total)		5	U
79-20-9-----Methyl acetate		5	U
110-82-7-----Cyclohexane		5	U
108-87-2-----Methylcyclohexane		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW53-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-4

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-4A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	U
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-MW53-20

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-4

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-4A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

108-90-7-----	Chlorobenzene_____	5	U
100-41-4-----	Ethylbenzene_____	5	U
100-42-5-----	Styrene_____	5	U
75-25-2-----	Bromoform_____	5	U
98-82-8-----	Isopropyl Benzene_____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane_____	5	U
541-73-1-----	1,3-Dichlorobenzene_____	5	U
106-46-7-----	1,4-Dichlorobenzene_____	5	U
95-50-1-----	1,2-Dichlorobenzene_____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane_____	5	U
120-82-1-----	1,2,4-Trichlorobenzene_____	5	U
1330-20-7-----	Xylene (total)_____	5	U
79-20-9-----	Methyl acetate_____	5	U
110-82-7-----	Cyclohexane_____	5	U
108-87-2-----	Methylcyclohexane_____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name:	COMPUCHEM	Method:	GW-MW54R-20
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Lab Name: COMPUCHEM

Method:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-9

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-9RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	5	U	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U	
67-64-1-----	Acetone _____	6	J	
75-09-2-----	Methylene Chloride _____	2	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	13	U	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	1	J	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW54R-20
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-9

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-9RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
		5	U	
108-90-7-----	Chlorobenzene_____	5	U	
100-41-4-----	Ethylbenzene_____	5	U	
100-42-5-----	Styrene_____	5	U	
75-25-2-----	Bromoform_____	5	U	
98-82-8-----	Isopropyl Benzene_____	5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane_____	5	U	
541-73-1-----	1,3-Dichlorobenzene_____	5	U	
106-46-7-----	1,4-Dichlorobenzene_____	5	U	
95-50-1-----	1,2-Dichlorobenzene_____	5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane_____	5	U	
120-82-1-----	1,2,4-Trichlorobenzene_____	5	U	
1330-20-7-----	Xylene (total)_____	5	U	
79-20-9-----	Methyl acetate_____	5	U	
110-82-7-----	Cyclohexane_____	5	U	
108-87-2-----	Methylcyclohexane_____	5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW55-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-10

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-10RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	5	U	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U	
67-64-1-----	Acetone _____	13	U	
75-09-2-----	Methylene Chloride _____	2	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	3	J	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	5	U	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW55-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-10

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-10RB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene _____	5	U
100-41-4-----	Ethylbenzene _____	5	U
100-42-5-----	Styrene _____	5	U
75-25-2-----	Bromoform _____	5	U
98-82-8-----	Isopropyl Benzene _____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane _____	5	U
541-73-1-----	1,3-Dichlorobenzene _____	5	U
106-46-7-----	1,4-Dichlorobenzene _____	5	U
95-50-1-----	1,2-Dichlorobenzene _____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane _____	5	U
120-82-1-----	1,2,4-Trichlorobenzene _____	1	JB
1330-20-7-----	Xylene (total) _____	5	U
79-20-9-----	Methyl acetate _____	5	U
110-82-7-----	Cyclohexane _____	5	U
108-87-2-----	Methylcyclohexane _____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name:	COMPUCHEM			Method:	GW-MW56-20
Lab Code:	LIBRTY	Case No.:		SAS No.:	SDG No.: I2231
Matrix:	(soil/water)	WATER		Lab Sample ID:	I2231-8
Sample wt/vol:	5	(g/ml)	ML	Lab File ID:	I2231-8RA52
Level:	(low/med)	LOW		Date Received:	09/12/02
% Moisture:	not dec.	_____		Date Analyzed:	09/24/02
GC Column:	EQUITY624	ID: 0.53	(mm)	Dilution Factor:	1.0
Soil Extract Volume:	_____	(uL)		Soil Aliquot Volume:	_____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	6	
75-69-4-----	Trichlorodifluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	3	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	520	E
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW56-20
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-8

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-8RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene _____	5	U
100-41-4-----	Ethylbenzene _____	5	U
100-42-5-----	Styrene _____	5	U
75-25-2-----	Bromoform _____	5	U
98-82-8-----	Isopropyl Benzene _____	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane _____	5	U
541-73-1-----	1,3-Dichlorobenzene _____	5	U
106-46-7-----	1,4-Dichlorobenzene _____	5	U
95-50-1-----	1,2-Dichlorobenzene _____	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane _____	5	U
120-82-1-----	1,2,4-Trichlorobenzene _____	5	U
1330-20-7-----	Xylene (total) _____	5	U
79-20-9-----	Methyl acetate _____	5	U
110-82-7-----	Cyclohexane _____	5	U
108-87-2-----	Methylcyclohexane _____	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW56-20DL

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-8

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-8DB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 3.3

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	17	U	
74-87-3-----	Chloromethane _____	17	U	
75-01-4-----	Vinyl Chloride _____	17	U	
74-83-9-----	Bromomethane _____	17	U	
75-00-3-----	Chloroethane _____	6	DJ	
75-69-4-----	Trichlorodifluoromethane _____	17	U	
75-35-4-----	1,1-Dichloroethene _____	17	U	
75-15-0-----	Carbon disulfide _____	17	U	
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	17	U	
67-64-1-----	Acetone _____	42	U	
75-09-2-----	Methylene Chloride _____	6	DJB	
156-60-5-----	trans-1,2-Dichloroethene _____	17	U	
1634-04-4-----	Methyl-tert-butyl ether _____	17	U	
75-34-3-----	1,1-Dichloroethane _____	17	U	
156-59-2-----	cis-1,2-Dichloroethene _____	17	U	
78-93-3-----	2-butanone _____	42	U	
67-66-3-----	Chloroform _____	17	U	
71-55-6-----	1,1,1-Trichloroethane _____	17	U	
56-23-5-----	Carbon Tetrachloride _____	17	U	
71-43-2-----	Benzene _____	460	D	
107-06-2-----	1,2-Dichloroethane _____	17	U	
79-01-6-----	Trichloroethene _____	17	U	
78-87-5-----	1,2-Dichloropropane _____	17	U	
75-27-4-----	Bromodichloromethane _____	17	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	17	U	
108-10-1-----	4-Methyl-2-pentanone _____	42	U	
108-88-3-----	Toluene _____	17	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	17	U	
79-00-5-----	1,1,2-Trichloroethane _____	17	U	
127-18-4-----	Tetrachloroethene _____	17	U	
591-78-6-----	2-hexanone _____	42	U	
124-48-1-----	Dibromochloromethane _____	17	U	
106-93-4-----	1,2-Dibromoethane _____	17	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-MW56-20DL

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-8

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-8DB52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 3.3

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene	17	U	
100-41-4-----	Ethylbenzene	17	U	
100-42-5-----	Styrene	17	U	
75-25-2-----	Bromoform	17	U	
98-82-8-----	Isopropyl Benzene	17	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	17	U	
541-73-1-----	1,3-Dichlorobenzene	4	DJB	
106-46-7-----	1,4-Dichlorobenzene	17	U	
95-50-1-----	1,2-Dichlorobenzene	3	DJB	
96-12-8-----	1,2-Dibromo-3-Chloropropane	17	U	
120-82-1-----	1,2,4-Trichlorobenzene	7	DJB	
1330-20-7-----	Xylene (total)	17	U	
79-20-9-----	Methyl acetate	17	U	
110-82-7-----	Cyclohexane	17	U	
108-87-2-----	Methylcyclohexane	17	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-DUP01-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-4

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-4RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/24/02

Soil Extract Volume: \_\_\_\_\_ (uL)

Dilution Factor: 1.0

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	13	U
75-09-2-----	Methylene Chloride _____	3	JB
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-DUP01-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-4

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-4RA52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec.

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene		5	U
100-41-4-----	Ethylbenzene		2	J
100-42-5-----	Styrene		5	U
75-25-2-----	Bromoform		5	U
98-82-8-----	Isopropyl Benzene		6	
79-34-5-----	1,1,2,2-Tetrachloroethane		5	
541-73-1-----	1,3-Dichlorobenzene		5	U
106-46-7-----	1,4-Dichlorobenzene		5	U
95-50-1-----	1,2-Dichlorobenzene		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane		2	J
120-82-1-----	1,2,4-Trichlorobenzene		5	U
1330-20-7-----	Xylene (total)		5	U
79-20-9-----	Methyl acetate		5	U
110-82-7-----	Cyclohexane		5	U
108-87-2-----	Methylcyclohexane		1	J

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-DUP02-20

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-3

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-3A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_  
GC Column: EQUITY624 ID: 0.53 (mm)

Date Analyzed: 09/24/02

Soil Extract Volume: \_\_\_\_\_ (uL)

Dilution Factor: 1.0

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----✓	Chloromethane _____	5	U
75-01-4-----✓	Vinyl Chloride _____	5	U
74-83-9-----✓	Bromomethane _____	5	U
75-00-3-----✓	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----✓	1,1-Dichloroethene _____	5	U
75-15-0-----✓	Carbon disulfide _____	5	U
76-13-1-----✓	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----✓	Acetone _____	13	U
75-09-2-----✓	Methylene Chloride _____	2	JB
156-60-5-----✓	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----✓	1,1-Dichloroethane _____	5	U
156-59-2-----✓	cis-1,2-Dichloroethene _____	5	U
78-93-3-----✓	2-butanone _____	13	U
67-66-3-----✓	Chloroform _____	5	U
71-55-6-----✓	1,1,1-Trichloroethane _____	5	U
56-23-5-----✓	Carbon Tetrachloride _____	5	U
71-43-2-----✓	Benzene _____	5	J
107-06-2-----✓	1,2-Dichloroethane _____	5	U
79-01-6-----✓	Trichloroethene _____	5	U
78-87-5-----✓	1,2-Dichloropropane _____	5	U
75-27-4-----✓	Bromodichloromethane _____	5	U
10061-01-5-----✓	cis-1,3-Dichloropropene _____	5	U
108-10-1-----✓	4-Methyl-2-pentanone _____	13	U
108-88-3-----✓	Toluene _____	5	U
10061-02-6-----✓	trans-1,3-Dichloropropene _____	5	U
79-00-5-----✓	1,1,2-Trichloroethane _____	5	U
127-18-4-----✓	Tetrachloroethene _____	5	U
591-78-6-----✓	2-hexanone _____	13	U
124-48-1-----✓	Dibromochloromethane _____	5	U
106-93-4-----✓	1,2-Dibromoethane _____	5	U

12.5 per QAPP

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-DUP02-20

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER Lab Sample ID: J2231-3

Sample wt/vol: 5 (g/ml) ML Lab File ID: J2231-3A52

Level: (low/med) LOW Date Received: 09/12/02

% Moisture: not dec. Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

108-90-7-----✓-Chlorobenzene		5	U
100-41-4-----✓-Ethylbenzene		5	U
100-42-5-----✓-Styrene		5	U
75-25-2-----✓-Bromoform		5	U
98-82-8-----Isopropyl Benzene		5	U
79-34-5-----✓-1,1,2,2-Tetrachloroethane		5	U
541-73-1-----✓-1,3-Dichlorobenzene		5	U
106-46-7-----✓-1,4-Dichlorobenzene		5	U
95-50-1-----✓-1,2-Dichlorobenzene		5	U
96-12-8-----1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----✓-1,2,4-Trichlorobenzene		5	U
1330-20-7-----✓-Xylene (total)		5	U
79-20-9-----Methyl acetate		5	U
110-82-7-----Cyclohexane		5	U
108-87-2-----Methylcyclohexane		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM		Method:	GW-DUP03-20	
Lab Code: LIBRTY	Case No.:	SAS No.:	SDG No.: I2231	
Matrix: (soil/water) WATER		Lab Sample ID: I2231-14		
Sample wt/vol:	5 (g/ml)	ML	Lab File ID: I2231-14B52	
Level:	(low/med)	LOW	Date Received: 09/12/02	
% Moisture:	not dec.		Date Analyzed: 09/25/02	
GC Column: EQUITY624 ID: 0.53 (mm)		Dilution Factor: 1.0		
Soil Extract Volume: _____ (uL)		Soil Aliquot Volume: _____ (uL)		
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q		
75-71-8-----	Dichlorodifluoromethane	5	U	
74-87-3-----	Chloromethane	5	U	
75-01-4-----	Vinyl Chloride	5	U	
74-83-9-----	Bromomethane	5	U	
75-00-3-----	Chloroethane	5	U	
75-69-4-----	Trichlorofluoromethane	5	U	
75-35-4-----	1,1-Dichloroethene	5	U	
75-15-0-----	Carbon disulfide	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U	
67-64-1-----	Acetone	13	U	
75-09-2-----	Methylene Chloride	2	JB	
156-60-5-----	trans-1,2-Dichloroethene	5	U	
1634-04-4-----	Methyl-tert-butyl ether	5	U	
75-34-3-----	1,1-Dichloroethane	5	U	
156-59-2-----	cis-1,2-Dichloroethene	5	U	
78-93-3-----	2-butanone	13	U	
67-66-3-----	Chloroform	5	U	
71-55-6-----	1,1,1-Trichloroethane	0.7	J	
56-23-5-----	Carbon Tetrachloride	5	U	
71-43-2-----	Benzene	5	U	
107-06-2-----	1,2-Dichloroethane	5	U	
79-01-6-----	Trichloroethene	5	U	
78-87-5-----	1,2-Dichloropropane	5	U	
75-27-4-----	Bromodichloromethane	5	U	
10061-01-5-----	cis-1,3-Dichloropropene	5	U	
108-10-1-----	4-Methyl-2-pentanone	13	U	
108-88-3-----	Toluene	5	U	
10061-02-6-----	trans-1,3-Dichloropropene	5	U	
79-00-5-----	1,1,2-Trichloroethane	5	U	
127-18-4-----	Tetrachloroethene	5	U	
591-78-6-----	2-hexanone	13	U	
124-48-1-----	Dibromochloromethane	5	U	
106-93-4-----	1,2-Dibromoethane	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-DUP03-20
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Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-14

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-14B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec.

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	0.7	JB
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-EB01-20

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-8

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-8A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec.

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	5	U
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-EB01-20
------------

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-8

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-8A52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/24/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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108-90-7-----	Chlorobenzene		5	U
100-41-4-----	Ethylbenzene		5	U
100-42-5-----	Styrene		5	U
75-25-2-----	Bromoform		5	U
98-82-8-----	Isopropyl Benzene		5	U
79-34-5-----	1,1,2,2-Tetrachloroethane		5	U
541-73-1-----	1,3-Dichlorobenzene		5	U
106-46-7-----	1,4-Dichlorobenzene		5	U
95-50-1-----	1,2-Dichlorobenzene		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----	1,2,4-Trichlorobenzene		5	U
1330-20-7-----	Xylene (total)		5	U
79-20-9-----	Methyl acetate		5	U
110-82-7-----	Cyclohexane		5	U
108-87-2-----	Methylcyclohexane		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM	Method:	GW-EB02-20
Lab Code: LIBRTY	Case No.:	SAS No.: SDG No.: I2231
Matrix: (soil/water) WATER		Lab Sample ID: I2231-15
Sample wt/vol: 5 (g/ml) ML		Lab File ID: I2231-15B52
Level: (low/med) LOW		Date Received: 09/12/02
% Moisture: not dec.		Date Analyzed: 09/25/02
GC Column: EQUITY624 ID: 0.53 (mm)		Dilution Factor: 1.0
Soil Extract Volume: _____ (uL)		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane	5	U	
74-87-3-----	Chloromethane	5	U	
75-01-4-----	Vinyl Chloride	5	U	
74-83-9-----	Bromomethane	5	U	
75-00-3-----	Chloroethane	5	U	
75-69-4-----	Trichlorofluoromethane	5	U	
75-35-4-----	1,1-Dichloroethene	5	U	
75-15-0-----	Carbon disulfide	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U	
67-64-1-----	Acetone	13	U	
75-09-2-----	Methylene Chloride	2	JB	
156-60-5-----	trans-1,2-Dichloroethene	5	U	
1634-04-4-----	Methyl-tert-butyl ether	5	U	
75-34-3-----	1,1-Dichloroethane	5	U	
156-59-2-----	cis-1,2-Dichloroethene	5	U	
78-93-3-----	2-butanone	13	U	
67-66-3-----	Chloroform	5	U	
71-55-6-----	1,1,1-Trichloroethane	5	U	
56-23-5-----	Carbon Tetrachloride	5	U	
71-43-2-----	Benzene	5	U	
107-06-2-----	1,2-Dichloroethane	5	U	
79-01-6-----	Trichloroethene	2	J	
78-87-5-----	1,2-Dichloropropane	5	U	
75-27-4-----	Bromodichloromethane	5	U	
10061-01-5-----	cis-1,3-Dichloropropene	5	U	
108-10-1-----	4-Methyl-2-pentanone	13	U	
108-88-3-----	Toluene	5	U	
10061-02-6-----	trans-1,3-Dichloropropene	5	U	
79-00-5-----	1,1,2-Trichloroethane	5	U	
127-18-4-----	Tetrachloroethene	5	U	
591-78-6-----	2-hexanone	13	U	
124-48-1-----	Dibromochloromethane	5	U	
106-93-4-----	1,2-Dibromoethane	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-EB02-20

Lab Name: COMPUCHEM

Method:

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-15

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-15B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

108-90-7-----Chlorobenzene		5	U
100-41-4-----Ethylbenzene		5	U
100-42-5-----Styrene		5	U
75-25-2-----Bromoform		5	U
98-82-8-----Isopropyl Benzene		5	U
79-34-5-----1,1,2,2-Tetrachloroethane		5	U
541-73-1-----1,3-Dichlorobenzene		5	U
106-46-7-----1,4-Dichlorobenzene		5	U
95-50-1-----1,2-Dichlorobenzene		5	U
96-12-8-----1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----1,2,4-Trichlorobenzene		1	JB
1330-20-7-----Xylene (total)		2	J
79-20-9-----Methyl acetate		5	U
110-82-7-----Cyclohexane		5	U
108-87-2-----Methylcyclohexane		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-EB03-20
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Lab Name: COMPUCHEM                          Method: 8260B

Lab Code: LIBRTY    Case No.:                          SAS No.:                          SDG No.: J2231

Matrix: (soil/water) WATER                          Lab Sample ID: J2231-17

Sample wt/vol: 5 (g/ml) ML                          Lab File ID: J2231-17RB52

Level: (low/med) LOW                                  Date Received: 09/24/02

% Moisture: not dec.                                  Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)                          Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)                          Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U
74-87-3-----	Chloromethane _____	5	U
75-01-4-----	Vinyl Chloride _____	5	U
74-83-9-----	Bromomethane _____	5	U
75-00-3-----	Chloroethane _____	5	U
75-69-4-----	Trichlorofluoromethane _____	5	U
75-35-4-----	1,1-Dichloroethene _____	5	U
75-15-0-----	Carbon disulfide _____	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U
67-64-1-----	Acetone _____	3	J
75-09-2-----	Methylene Chloride _____	3	J
156-60-5-----	trans-1,2-Dichloroethene _____	5	U
1634-04-4-----	Methyl-tert-butyl ether _____	5	U
75-34-3-----	1,1-Dichloroethane _____	5	U
156-59-2-----	cis-1,2-Dichloroethene _____	5	U
78-93-3-----	2-butanone _____	13	U
67-66-3-----	Chloroform _____	5	U
71-55-6-----	1,1,1-Trichloroethane _____	5	U
56-23-5-----	Carbon Tetrachloride _____	5	U
71-43-2-----	Benzene _____	5	U
107-06-2-----	1,2-Dichloroethane _____	5	U
79-01-6-----	Trichloroethene _____	5	U
78-87-5-----	1,2-Dichloropropane _____	5	U
75-27-4-----	Bromodichloromethane _____	5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U
108-10-1-----	4-Methyl-2-pentanone _____	13	U
108-88-3-----	Toluene _____	5	U
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U
79-00-5-----	1,1,2-Trichloroethane _____	5	U
127-18-4-----	Tetrachloroethene _____	5	U
591-78-6-----	2-hexanone _____	13	U
124-48-1-----	Dibromochloromethane _____	5	U
106-93-4-----	1,2-Dibromoethane _____	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

GW-EB03-20
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Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-17

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-17RB52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM	Method:	GW-TB01-20
Lab Code: LIBRTY	Case No.:	SAS No.: SDG No.: I2231
Matrix: (soil/water) WATER		Lab Sample ID: I2231-17
Sample wt/vol: 5 (g/ml)	ML	Lab File ID: I2231-17B52
Level: (low/med) LOW		Date Received: 09/12/02
% Moisture: not dec.		Date Analyzed: 09/25/02
GC Column: EQUITY624 ID: 0.53 (mm)		Dilution Factor: 1.0
Soil Extract Volume: _____ (uL)		Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane _____	5	U	
74-87-3-----	Chloromethane _____	5	U	
75-01-4-----	Vinyl Chloride _____	5	U	
74-83-9-----	Bromomethane _____	5	U	
75-00-3-----	Chloroethane _____	5	U	
75-69-4-----	Trichlorofluoromethane _____	5	U	
75-35-4-----	1,1-Dichloroethene _____	5	U	
75-15-0-----	Carbon disulfide _____	5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	5	U	
67-64-1-----	Acetone _____	13	U	
75-09-2-----	Methylene Chloride _____	2	JB	
156-60-5-----	trans-1,2-Dichloroethene _____	5	U	
1634-04-4-----	Methyl-tert-butyl ether _____	5	U	
75-34-3-----	1,1-Dichloroethane _____	5	U	
156-59-2-----	cis-1,2-Dichloroethene _____	5	U	
78-93-3-----	2-butanone _____	13	U	
67-66-3-----	Chloroform _____	5	U	
71-55-6-----	1,1,1-Trichloroethane _____	5	U	
56-23-5-----	Carbon Tetrachloride _____	5	U	
71-43-2-----	Benzene _____	5	U	
107-06-2-----	1,2-Dichloroethane _____	5	U	
79-01-6-----	Trichloroethene _____	5	U	
78-87-5-----	1,2-Dichloropropane _____	5	U	
75-27-4-----	Bromodichloromethane _____	5	U	
10061-01-5-----	cis-1,3-Dichloropropene _____	5	U	
108-10-1-----	4-Methyl-2-pentanone _____	13	U	
108-88-3-----	Toluene _____	5	U	
10061-02-6-----	trans-1,3-Dichloropropene _____	5	U	
79-00-5-----	1,1,2-Trichloroethane _____	5	U	
127-18-4-----	Tetrachloroethene _____	5	U	
591-78-6-----	2-hexanone _____	13	U	
124-48-1-----	Dibromochloromethane _____	5	U	
106-93-4-----	1,2-Dibromoethane _____	5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method:

GW-TB01-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: I2231

Matrix: (soil/water) WATER

Lab Sample ID: I2231-17

Sample wt/vol: 5 (g/ml) ML

Lab File ID: I2231-17B52

Level: (low/med) LOW

Date Received: 09/12/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/25/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
108-90-7-----	Chlorobenzene		5	U
100-41-4-----	Ethylbenzene		5	U
100-42-5-----	Styrene		5	U
75-25-2-----	Bromoform		5	U
98-82-8-----	Isopropyl Benzene		5	U
79-34-5-----	1,1,2,2-Tetrachloroethane		5	U
541-73-1-----	1,3-Dichlorobenzene		5	U
106-46-7-----	1,4-Dichlorobenzene		5	U
95-50-1-----	1,2-Dichlorobenzene		5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane		5	U
120-82-1-----	1,2,4-Trichlorobenzene		5	U
1330-20-7-----	Xylene (total)		5	U
79-20-9-----	Methyl acetate		5	U
110-82-7-----	Cyclohexane		5	U
108-87-2-----	Methylcyclohexane		5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-TB02-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-18

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-18B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec.

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
75-15-0-----	Carbon disulfide	5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	5	U
67-64-1-----	Acetone	13	U
75-09-2-----	Methylene Chloride	2	J
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl-tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
78-93-3-----	2-butanone	13	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
71-43-2-----	Benzene	1	J
107-06-2-----	1,2-Dichloroethane	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	13	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-hexanone	13	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

GW-TB02-20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: J2231

Matrix: (soil/water) WATER

Lab Sample ID: J2231-18

Sample wt/vol: 5 (g/ml) ML

Lab File ID: J2231-18B52

Level: (low/med) LOW

Date Received: 09/24/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/27/02

GC Column: EQUITY624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropyl Benzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
1330-20-7-----	Xylene (total)	5	U
79-20-9-----	Methyl acetate	5	U
110-82-7-----	Cyclohexane	5	U
108-87-2-----	Methylcyclohexane	5	U

## **Introduction**

The following text is based on the validation of water samples collected at American Chemical Service, Inc. in September and October 2002.

Five water samples and two QA/QC samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), metals, cyanide by CompuChem Laboratories of Cary, North Carolina. One water sample (ACSGWPWB20) and its duplicate were resampled and reanalyzed by CompuChem Laboratories in October 2002 due to the suspect laboratory contaminant, bis(2-ethylhexyl)phthalate found in the sample. The samples are identified by sample delivery group (SDG) as follows:

- SDG K2231 VOA, (samples: ACSGWPWD20, ACSGWPWY20, ACSGWPWB20, ACSGWPWC20, ACSGWPWT20)
- SDG K2231 SVOA, (samples: ACSGWPWD20, ACSGWPWY20, ACSGWPWB20, ACSGWPWC20, ACSGWPWT20)
- SDG K2231 PCBs/Pests, (samples: ACSGWPWD20, ACSGWPWY20, ACSGWPWB20, ACSGWPWC20, ACSGWPWT20)
- SDG K2231 Metals and Cyanide, (samples: ACSGWPWD20, ACSGWPWY20, ACSGWPWB20, ACSGWPWC20, ACSGWPWT20)
- SDG L2231 SVOA, (samples: ACSGWPWD20, ACSGWPWY20, ACSGWPWB20, ACSGWPWC20, ACSGWPWT20)

Data validation was conducted in accordance with procedures specified in the following as applicable to each method:

- Quality Assurance Plan: For the Remedial Design/Remediation Action at the American Chemical Service, Inc. NPL Site (MWH, 2001)
- USEPA Contract Laboratory Program Statement of Work for Organic Analysis OLM03.1 (U.S. EPA, August 1994)
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis Multi-Media, Multi-Concentration ILM04.1 (U.S. EPA, February 2000)
- National Functional Guidelines for Organic Data Review (U.S. EPA, 1999)
- National Functional Guidelines for Inorganic Data Review (U.S. EPA, 1994)

The following quality control samples were collected during the September and October 2002 sampling round:

- Field duplicates (ACSGWPWDUP20, ACSGWPWDUP20 resample)
- Trip blank (ACSGWPWTB20)

## **Volatiles Data Review (SW8260B)**

### **1. Holding Times**

All holding times and cooler temperatures met requirements for all samples.

### **2. GC/MS Instrument Performance Check**

Instrument performance was checked at 12-hour intervals and all ion abundance requirements were met for all SDGs.

### **3. Initial Calibration**

Initial calibration was performed using the required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30% for all compounds. Average relative response factors (RRF) for all VOCs and system performance check compounds (SPCCs) were within method and validation criteria for all SDGs.

### **4. Continuing Calibration**

Continuing calibration was performed at the required frequencies. All continuing calibration RRFs for target compounds were greater than or equal to 0.05. The percent differences (%D) between the initial and continuing calibration RRFs were less than or equal to 25%.

### **5. Blanks**

No volatile contaminants were found in the method blanks except for the following:

SDG	Method Blank ID	Compound	Conc.	Associated Samples	Conc.	Flag
K2231	VBLKZP	Bromomethane	0.2 µg/L	ACSGWPWD20	0.1 µg/L	UB
				ACSGWPWDUP20	0.1 µg/L	UB
				ACSGWPWT20	0.1 µg/L	UB
		Acetone	1 µg/L	ACSGWPWTB20	2 µg/L	UB
				ACSGWPWD20	2 µg/L	UB
				ACSGWPWDUP20	2 µg/L	UB
				ACSGWPWY20	2 µg/L	UB
				ACSGWPWB20	2 µg/L	UB
				ACSGWPWT20	3 µg/L	UB
				ACSGWPWC20	2 µg/L	UB
		Methylene Chloride	0.5 µg/L	ACSGWPWTB20	0.6 µg/L	UB
				ACSGWPWD20	0.5 µg/L	UB
				ACSGWPWDUP20	0.4 µg/L	UB
				ACSGWPWY20	0.6 µg/L	UB
				ACSGWPWB20	0.5 µg/L	UB
				ACSGWPWT20	0.5 µg/L	UB
				ACSGWPWC20	0.5 µg/L	UB
		Toluene	0.1 µg/L	ACSGWPWTB20	0.2 µg/L	UB
				ACSGWPWD20	0.1 µg/L	UB
				ACSGWPWDUP20	0.08 µg/L	UB
				ACSGWPWY20	0.1 µg/L	UB
				ACSGWPWB20	0.1 µg/L	UB
				ACSGWPWT20	0.2 µg/L	UB
				ACSGWPWC20	0.2 µg/L	UB

SDG	Method Blank ID	Compound	Conc.	Associated Samples	Conc.	Flag
		m,p-Xylene	0.06 µg/L	ACSGWPWB20	0.06 µg/L	UB
				ACSGWPWTB20	0.07 µg/L	UB
				ACSGWPWD20	0.09 µg/L	UB
				ACSGWPWY20	0.08 µg/L	UB
		Xylenes, Total	0.07 µg/L	ACSGWPWB20	0.07 µg/L	UB
				ACSGWPWTB20	0.08 µg/L	UB
				ACSGWPWD20	0.09 µg/L	UB
				ACSGWPWY20	0.09 µg/L	UB

Sample concentrations were compared to concentrations detected in the method blanks. The results for the above listed samples were at concentrations less than five times the concentration in the associated blank, resulting in 'UB' sample data qualification.

No volatile contaminants were found in the trip blanks except for the following:

SDG	Trip Blank ID	Compound	Conc.	Associated Samples	Conc.	Flag
K2231	ACSGWPWTB20	Chloromethane	0.2 µg/L	ACSGWPWD20	0.3 µg/L	UB
				ACSGWPWDUP20	0.5 µg/L	UB
				ACSGWPWY20	0.4 µg/L	UB
				ACSGWPWB20	0.3 µg/L	UB
				ACSGWPWC20	0.1 µg/L	UB
		Acetone	2 µg/L UB	Compound considered ND in the trip blank sample. No further qualification of associated sample data is necessary.	NA	NA
		Methylene Chloride	0.6 µg/L UB	Compound considered ND in the trip blank sample. No further qualification of associated sample data is necessary.	NA	NA
		Toluene	0.2 µg/L UB	Compound considered ND in the trip blank sample. No further qualification of associated sample data is necessary.	NA	NA
		m,p-xylene	0.07 µg/L UB	Compound considered ND in the trip blank sample. No further qualification of associated sample data is necessary.	NA	NA
		Xylenes, Total	0.08 µg/L UB	Compound considered ND in the trip blank sample. No further qualification of associated sample data is necessary.	NA	NA

Volatile contaminants found in the trip blanks that were qualified with a 'UB' are considered not detected in the trip blank sample. Sample concentrations were compared to concentrations detected in the associated trip blanks. The results for the samples listed above were at concentrations less than five times the concentration in the blanks, resulting in 'UB' sample data qualification.

## **6. System Monitoring Compounds**

System monitoring compounds (surrogate spike compounds) recoveries were within the QAPP QC limits.

## **7. Matrix Spike/Matrix Spike Duplicates**

Matrix Spike (MS) and matrix spike duplicate (MSD) samples were within QAPP QC limits.

## **8. Laboratory Control Samples**

Laboratory control samples percent recoveries were within QAPP QC limits for all samples.

## **9. Regional Quality Assurance and Quality Control**

Not applicable.

## **10. Internal Standards**

All internal standard areas and retention times were within QAPP QC limits.

## **11. Target Compound Identification**

All target compounds were identified appropriately by the laboratory. There was no significant shift in the retention times for the internal standard

## **12. Compound Quantitation and Reported CRQLs**

The reporting limits for each compound met the criteria outlined in the QAPP. Any concentrations reported below the reporting limit are qualified with a 'J' flag to indicate the data are estimated.

## **13. Tentatively Identified Compounds**

Tentatively identified compounds were not evaluated.

## **14. System Performance**

System performance was acceptable based on the instrument tune and calibration standards

## **15. Overall Assessment of Data**

The data reported are acceptable. The only data that were qualified are the data that are summarized and discussed in Section 5 (method and trip blank discussion) of this report.

## **16. Field Duplicates**

No volatiles were detected above the reporting limits in the field duplicate samples except for the following:

		Concentration ( $\mu\text{g/L}$ )		
<b>SDG</b>	<b>Compound</b>	<b>ACSGWPWD20</b>	<b>ACSGWPWDUP20</b>	<b>RPD</b>
K2231	Methylene Chloride	0.5 UB	0.4 J	NA

Methylene Chloride is considered ND in the parent sample due to the UB qualifier. RPD is not calculated for duplicate results unless both the parent and duplicate results are above the reporting limit.

## **Semi-Volatile Data Review (SW8270C)**

### **1. Holding Times**

All holding times and cooler temperatures met requirements for all samples.

### **2. GC/MS Instrument Performance Check**

Instrument performance was checked at 12-hour intervals and all ion abundance requirements were met for all SDGs.

### **3. Initial Calibration**

Initial calibration was performed using the required standard concentrations. The minimum RRF was greater than 0.05. The %RSD for the RRFs was less than or equal to 30% except for pentachlorophenol in L2231. However, because there was no pentachlorophenol detected in the samples, and the RRF values indicate a high bias, the data were not qualified.

### **4. Continuing Calibration**

Continuing Calibration was performed at the required frequency. The minimum RRF was greater than 0.05 for target compounds. The %D between the initial mean RRF and continuing RRF was within  $\pm 25\%$  except for N-nitroso-di-n-propylamine, nitrobenzene, and hexachlorobutadiene in SDG L2231. However, because these compounds were not detected in the samples, and the RF values indicate a high bias, the data were not qualified.

### **5. Blanks**

No semi-volatile contaminants were found in the method blanks except for the following:

SDG	Method Blank ID	Compound	Conc.	Associated Samples	Conc.	Flag
L2231	SBLKQA	Bis(2-ethylhexyl)phthalate	3 µg/L	None	NA	NA

### **6. System Monitoring Compounds**

The laboratory used 16 different surrogates for each analysis, instead of the 6 surrogate compounds that are listed in the QAPP. However, all surrogate percent recoveries met the laboratory QC limits with the following exception. Samples ACGWPWB20 and its field duplicate, ACGWDUP20 each had three surrogate recoveries that were higher than the laboratory QC limits. Because there were no semi-volatile contaminants detected in these samples, the high bias does not have any effect on the data.

### **7. Matrix Spike/Matrix Spike Duplicates**

Matrix spike and matrix spike duplicate samples were within QAPP QC limits.

### **8. Laboratory Control Samples**

LCS samples were not performed by the laboratory. Because the MS/MSD data is acceptable, the data are considered acceptable without qualification.

### **9. Regional Quality Assurance and Quality Control**

Not applicable.

## **10. Internal Standards**

All internal standard areas and retention times were within QAPP QC limits.

## **11. Target Compound Identification**

Target compound identification was acceptable with the exception of Carbazole. Carbazole is on the compound list included in the QAPP for SW8270C. However, the laboratory did not analyze the samples for this compound.

## **12. Compound Quantitation and Reported CRQLs**

There were no compounds detected in any of the samples at concentrations above the reporting limits with one exception. The common laboratory contaminant, bis(2ethyl hexyl)phthalate was detected in sample ACSGWPWB20 at a concentration of 23 micrograms per liter. This location was resampled on October 25, 2002 and reanalyzed by the laboratory as part of SDG L2231. The reanalysis of this location showed no presence of bis (2ethylhexyl)phthalate.

## **13. Tentatively Identified Compounds**

Tentatively identified compounds were not evaluated.

## **14. System Performance**

System performance was acceptable based on the instrument tune and calibration standards

## **15. Overall Assessment of Data**

The data are acceptable as reported without qualification.

## **16. Field Duplicates**

No semi-volatile compounds were detected above the reporting limits in the field duplicate samples.

## **Pesticides and PCBs Review**

### **1. Holding Times**

All holding times and cooler temperatures met requirements for all samples.

### **2. Initial Calibration**

Initial calibration was performed using the required standard concentrations. The criteria of the RSD < 20% was met for the initial calibration.

### **3. Continuing Calibration**

Continuing Calibration was performed at the required frequency and met the required criteria.

### **4. Blanks**

No pesticide or PCB contaminants were found in the method blanks.

### **5. System Monitoring Compounds**

System monitoring compounds (surrogate spike compounds) recoveries were within the QAPP QC limits.

### **6. Matrix Spike/Matrix Spike Duplicates**

Matrix spike and matrix spike duplicate sample results were within QAPP QC limits except for the following:

Spike Compound	ACSGWPWY20 MS Percent Recovery	ACSGWPWY20 MSD Percent Recovery	Acceptance Criteria	Remarks
Gamma-BHC (Lindane)	50%	26%	(56-123%)	These poor spike recoveries are attributed to matrix interference. The surrogate and LCS data are acceptable and the MS/MSDs were reprepared and reanalyzed according to the QAPP corrective action procedures.
Heptachlor	450%	-120%	(40-131%)	

### **7. Laboratory Control Samples**

The Laboratoy control sample percent recoveries were within the QAPP QC limits for all samples.

### **8. Regional Quality Assurance and Quality Control**

Not applicable.

### **9. Target Compound Identification**

All target compounds were identified appropriately by the laboratory.

## **10. Compound Quantitation and Reported CRQLs**

The reporting limits for each compound met the criteria outlined in the QAPP. There were no compounds detected in any of the samples at concentrations below the reporting limits.

## **11. Tentatively Identified Compounds**

Tentatively identified compounds were not evaluated.

## **12. System Performance**

System performance was acceptable based on the calibration standards.

## **13. Overall Assessment of Data**

The data are acceptable as reported without any qualification.

## **14. Field Duplicates**

No pesticide/PCB analytes were detected above the reporting limits in the field duplicates samples.

## **Metals Data Review (SW6010B)**

### **1. Holding Times**

All holding times, cooler temperatures, and preservation met requirements for all samples.

### **2. Calibration**

The calibration was performed using the required ICV and CCV standards. The calibration met the QAPP QC limits.

### **3. Blanks**

There were no metals detected in the preparation blank samples except for the following:

Blank ID	Metal	Blank Concentration ( $\mu\text{g/L}$ )	Associated Samples	Sample Concentration ( $\mu\text{g/L}$ )	Flag
Preparation Blank	Aluminum	11.697	ACSGWPWY20	8.1	UB
	Antimony	2.243	ACSGWPWB20	3.4	UB
			ACSGWPWC20	3.4	UB
			ACSGPWD20	3.0	UB
			ACSGPWDUP20	3.8	UB
			ACSGWPWT20	3.1	UB
	Barium	0.416	ACSGWPWB20	131	B
			ACSGWPWC20	157	B
			ACSGPWD20	152	B
			ACSGPWDUP20	143	B
			ACSGWPWT20	152	B
			ACSGWPWY20	152	B
	Chromium	-0.419	ACSGWPWB20	0.65	UB
			ACSGWPWC20	0.49	UB
			ACSGPWD20	1.2	UB
	Copper	0.999	ACSGPWD20	1.7	UB
			ACSGPWDUP20	3.0	UB
			ACSGWPWT20	4.4	UB
			ACSGWPWY20	1.1	UB
	Magnesium	64.234	ACSGWPWB20	41200	B
			ACSGWPWC20	48100	B
			ACSGPWD20	47400	B
			ACSGPWDUP20	46600	B
			ACSGWPWT20	49100	B
			ACSGWPWY20	46400	B
	Potassium	-144.073	ACSGWPWB20	2270	B
			ACSGWPWC20	2840	B
			ACSGPWD20	2960	B
			ACSGPWDUP20	2820	B
			ACSGWPWT20	3110	B
			ACSGWPWY20	3290	B

<b>Blank ID</b>	<b>Metal</b>	<b>Blank Concentration (<math>\mu\text{g/L}</math>)</b>	<b>Associated Samples</b>	<b>Sample Concentration (<math>\mu\text{g/L}</math>)</b>	<b>Flag</b>
Preparation Blank (continued)	Zinc	2.274	ACSGWPWB20	12.4	B
			ACSGWPWC20	5.5	UB
			ACSGWPWD20	14.7	B
			ACSGWPWDUP20	12.7	B
			ACSGWPWT20	33.4	B
			ACSGWPWY20	13.4	B

Sample concentrations were compared to concentrations detected in the blanks. The results for the samples listed above that have concentrations less than five times the concentration in the blanks resulted in ‘UB’ sample data qualification. The results for the samples listed above that have greater than five times the concentration in the blanks resulted in ‘B’ sample data qualification.

#### **4. ICP Interference Check Sample (ICS)**

The ICS was analyzed at the proper frequency. The percent recoveries of the ICS samples were acceptable.

#### **5. Laboratory Control Sample**

Laboratory control samples percent recoveries were within QAPP QC limits for all samples.

#### **6. Duplicate Sample Analysis**

The duplicate sample analysis was acceptable and met method QC limits.

#### **7. Spike Sample Analysis**

All spike sample analyses were within QAPP QC requirements.

#### **8. Graphite Furnace Atomic Absorption QC**

Not applicable.

#### **9. ICP Serial Dilution**

The ICP serial dilution of sample ACSGPWY20 was performed in accordance with the QAPP. The adjusted sample concentrations were outside control limits for sodium which is flagged with an “E”. The “E” indicates that a chemical or physical interference effect was encountered during the analysis of sodium for sample ACSGPWY20.

## **10. Field Duplicates**

All the analytes were detected below the reporting limit in the field duplicates samples except for the following:

<b>SDG</b>	<b>Analyte</b>	<b>Concentration (<math>\mu\text{g/L}</math>)</b>		<b>RPD</b>
		ACSGWPWD20	ACSGWPWDUP20	
K2231	Barium	152	143	6.10%
	Calcium	89800	88300	1.68%
	Iron	2250	2220	1.34%
	Magnesium	47400	46600	1.70%
	Manganese	30.4	29.9	1.66%
	Potassium	2960	2820	4.84%
	Sodium	17100	17100	0.00%

## **11. Overall Assessment**

The data reported are acceptable as qualified.

## **12. Compound Quantitation and Reported CRQLs**

The reporting limits for each metal met the criteria outlined in the QAPP. Any concentration reported below the reporting limit are qualified with a 'J' flag to indicate the data are estimated.

## **Data Quality Assessment**

All data collected during the twentieth groundwater-sampling event are definitive. The following sections provide details on the precision, accuracy, representativeness, completeness, and comparability (PARCC) of the environmental samples, field QC samples, and laboratory data reported for this field event. The cross reference for the samples is listed in Table 1 and the sample holding times are listed in Table 2.

### **1. Precision**

The relative percent difference (RPD) calculated from data generated from the primary and field duplicate samples and the matrix spike and matrix spike duplicate (MS/MSD) samples provide a measurement of field and laboratory precision. Summaries of the RPDs generated from primary and field duplicates and MS/MSD samples are provided in Tables 3 and 4, respectively.

### **2. Accuracy**

Percent recoveries calculated from surrogate spike compounds added to samples analyzed for organic parameters and from target compounds added to laboratory control samples (LCS) provide a measurement of laboratory accuracy. Summaries of the spike recoveries for LCS samples are provided in Table 5. A summary of the surrogate recovery data is provided in Table 6.

### **3. Representativeness**

Representativeness was achieved through the use of standard field sampling and analytical procedures. All field sampling and analytical procedures were implemented per the Quality Assurance Project Plan (QAPP).

### **4. Completeness**

The percent completeness is calculated for each method and analyte combination. Completeness is defined as the number of valid results (i.e., those not rejected) minus the number of possible results not reported (i.e., samples that could not be analyzed for any reason), divided by the total number of possible results. The completeness by method is summarized below and listed in Table 7. The completeness goal for each analytical method is 95 percent. The overall method percent completeness for volatile organic compounds, semi-volatile organic compounds, pesticides/PCBs and metals is 99.2% percent, which exceeds the completeness goal of 95 percent.

### **5. Comparability**

Comparability was achieved by using standard methods for sampling and analysis and reporting data in standard units.

**Table 1**  
**Sample Cross Reference**  
**Round 20**

Field Sample Identification	Matrix	Field Location Identification	Collection Depth (feet)	Collection Date	Laboratory Sample Identification	Sample Type
ACSGWPWD20	Water	PWD	NA	9/17/2002	K2231-1	Normal Sample
ACSGPWDUP20	Water	FIELDQC	NA	9/17/2002	K2231-2	Field Duplicate
ACSGWPWY20	Water	PWY	NA	9/17/2002	K2231-3	Normal Sample
ACSGWPWY20MS	Water	PWY	NA	9/17/2002	K2231-3	Matrix Spike
ACSGWPWY20MSD	Water	PWY	NA	9/17/2002	K2231-3	Matrix Spike Duplicate
ACSGWPWB20	Water	PWB	NA	9/17/2002	K2231-4	Normal Sample
ACSGWPWT20	Water	PWT	NA	9/17/2002	K2231-5	Normal Sample
ACSGWPWC20	Water	PWC	NA	9/17/2002	K2231-6	Normal Sample
ACSGWPWTB20	Water	FIELDQC	NA	9/17/2002	K2231-7	Trip Blank
ACSGWPWB20	Water	PWB	NA	10/25/2002	L2231-1	Normal Sample
ACSGPWDUP20	Water	FIELDQC	NA	10/25/2002	L2231-2	Field Duplicate
ACSGWPWB20MS	Water	PWB	NA	10/25/2002	L2231-1	Matrix Spike
ACSGWPWB20MSD	Water	PWB	NA	10/25/2002	L2231-1	Matrix Spike Duplicate

**Notes:**

NA - Not Applicable

**Table 2**  
**Holding Time Evaluation: Summary of Extraction and Analysis Dates**  
**Round 20**

Analytical Method	Sample Identification	Collection Date	Extraction/Preparation Date	Extraction Holding Time (days)	Analysis Date	Analysis Holding Time
SW8260B	ACSGWPWB20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWC20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWD20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWDUP20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWT20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWTB20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWY20	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWY20MS	9/17/2002	9/30/2002	NA	9/30/2002	13
	ACSGWPWY20MSD	9/17/2002	9/30/2002	NA	9/30/2002	13
SW8270C	ACSGWPWB20	9/17/2002	9/21/2002	4	9/27/2002	6
	ACSGWPWC20	9/17/2002	9/21/2002	4	9/28/2002	7
	ACSGWPWD20	9/17/2002	9/21/2002	4	9/27/2002	6
	ACSGWPWDUP20	9/17/2002	9/21/2002	4	9/27/2002	6
	ACSGWPWT20	9/17/2002	9/21/2002	4	9/28/2002	7
	ACSGWPWY20	9/17/2002	9/21/2002	4	9/27/2002	6
	ACSGWPWY20MS	9/17/2002	9/21/2002	4	9/27/2002	6
	ACSGWPWY20MSD	9/17/2002	9/21/2002	4	9/27/2002	6
	ACSGWPWB20	10/25/2002	10/28/2002	3	10/31/2002	3
	ACSGWPWDUP20	10/25/2002	10/28/2002	3	10/31/2002	3
	ACSGWPWB20MS	10/25/2002	10/28/2002	3	10/31/2002	3
	ACSGWPWB20MSD	10/25/2002	10/28/2002	3	10/31/2002	3
Pesticides/PCBs	ACSGWPWB20	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWC20	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWD20	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWDUP20	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWT20	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWY20	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWY20MS	9/17/2002	9/20/2002	3	9/21/2002	1
	ACSGWPWY20MSD	9/17/2002	9/20/2002	3	9/21/2002	1
Mercury	ACSGWPWB20	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWC20	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWD20	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWDUP20	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWT20	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWY20	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWY20D	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWY20MS	9/17/2002	9/30/2002	13	10/1/2002	1
	ACSGWPWY20MSD	9/17/2002	9/30/2002	13	10/1/2002	1
Cyanide	ACSGWPWB20	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWC20	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWD20	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWDUP20	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWT20	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWY20	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWY20D	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWY20MS	9/17/2002	9/20/2002	3	9/24/2002	4
	ACSGWPWY20MSD	9/17/2002	9/20/2002	3	9/24/2002	4

**Table 2**  
**Holding Time Evaluation: Summary of Extraction and Analysis Dates**  
**Round 20**

Analytical Method	Sample Identification	Collection Date	Extraction/Preparation Date	Extraction Holding Time (days)	Analysis Date	Analysis Holding Time
Metals	ACSGWPWB20	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWC20	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWD20	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWDUP20	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWT20	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWY20	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWY20D	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWY20MS	9/17/2002	9/30/2002	13	9/30/2002	0
	ACSGWPWY20MSD	9/17/2002	9/30/2002	13	9/30/2002	0

**Notes:**

D - Matrix Duplicate Sample

TB - Trip Blank Sample

MS - Matrix Spike

MSD - Matrix Spike Duplicate

NA - Not Applicable

**Table 3**  
**Field Duplicate RPD Summary**  
**Round 20**

Sample Identification	Compound	Primary Sample Concentration	Flag	Field Duplicate Concentration	Flag	Units	RPD
ACSGWPWD20	Chloromethane	0.3	J	0.5	J	µg/L	NA
	Bromomethane	0.1	J	0.1	J	µg/L	NA
	Acetone	2	J	2	J	µg/L	NA
	Methylene Chloride	0.5		0.4	J	µg/L	NA
	Toluene	0.1	J	0.08	J	µg/L	NA
	m,p-Xylene	0.09	J	<1		µg/L	NA
	Xylenes (total)	0.09	J	<0.5		µg/L	NA
	Antimony	3	J	3.8	J	µg/L	NA
	Barium	152		143		µg/L	6.10%
	Calcium	89800		88300		µg/L	1.68%
	Chromium	1.2	J	<0.40		µg/L	NA
	Copper	1.7	J	3	J	µg/L	NA
	Iron	2250		2220		µg/L	1.34%
	Lead	1.8	J	<1.3		µg/L	NA
	Magnesium	47400		46600		µg/L	1.70%
	Manganese	30.4		29.9		µg/L	1.66%
	Potassium	2960		2820		µg/L	4.84%
	Sodium	17100		17100		µg/L	0.00%
	Zinc	14.7		12.7	J	µg/L	NA
	Cyanide	<1.5		4.3	J	µg/L	NA

**Notes:**

µg/L - Micrograms per Liter

NA - Not Applicable

RPD - Relative Percent Difference

**Flags:**

J - Indicates an estimated value. The analyte was positively detected, but the associated numerical value is above the method detection limit and below the practical quantitation limit.

**Table 4**  
**Matrix Spike and Matrix Spike Duplicate RPD and Recovery Summary**  
**Round 20**

Sample Identification	Location ID	Compound	Matrix Spike (% Rec)	Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD	Control Limits (%)
ACSGWPWY20 K2231	PWY	1,1-Dichloroethene	110	100	60-140	-9.52	14
		Benzene	110	100	60-140	-9.52	11
		Chlorobenzene	110	110	60-140	0.00	13
		Toluene	100	98	60-140	2.02	13
		Trichloroethene	120	100	60-140	-18.18	14
		Dibromofluorobenzene (surrogate)	119	110	80-120	-7.86	NA
		1,2-Dichloroethane-d4 (surrogate)	117	110	80-120	-6.17	NA
		Toluene-d8 (surrogate)	93	88	80-120	-5.52	NA
		Bromofluorobenzene (surrogate)	137*	119	80-120	-14.06	NA
ACSGWPWY20 K2231	PWY	Phenol	80	83	10-100	3.68	50
		2-Chlorophenol	82	88	35-136	7.06	50
		N-Nitroso-di-n-propylamine	68	74	31-150	8.45	50
		4-Chloro-3-methylphenol	86	89	35-150	3.43	500
		Acenaphthene	79	79	45-141	0.00	40
		4-Nitrophenol	82	87	10-150	-5.92	50
		2,4-Dinitrotoluene	79	84	50-150	-6.13	34
		Pentachlorophenol	88	91	32-150	3.35	50
		Pyrene	84	95	37-150	12.29	35
		Phenol-d5 (surrogate)	79	82	10-110	3.73	NA
		bis-(2-Chloroethyl) ether-d8 (surr)	79	84	41-94	6.13	NA
		2-Chlorophenol-d4 (surrogate)	76	79	33-110	3.87	NA
		4-Methylphenol-d8 (surrogate)	79	82	38-95	3.73	NA
		Nitrobenzene-d5 (surrogate)	79	76	35-114	-3.87	NA
		2-Nitrophenol-d4 (surrogate)	76	76	40-106	0.00	NA
		2,4-Dichlorophenol-d3 (surrogate)	74	71	42-98	-4.14	NA
		4-Chloroaniline-d4 (surrogate)	74*	71*	8-70	-4.14	NA
		Dimethylphthalate-d6 (surrogate)	82	82	62-102	0.00	NA
		Acenaphthylene-d8 (surrogate)	76	76	49-98	0.00	NA
		4-Nitrophenol-d4 (surrogate)	82	82	9-181	0.00	NA
		Fluorene-d10 (surrogate)	71	68	50-97	-4.32	NA
		4,6-Dinitro-2-methylphenol-d2 (surr)	63	63	53-153	0.00	NA
		Anthracene-d10 (surrogate)	84	84	55-116	0.00	NA
		Pyrene-d10 (surrogate)	84	89	47-114	5.78	NA
		Benzo (a) pyrene-d12 (surrogate)	79	82	54-120	3.73	NA

**Table 4**  
**Matrix Spike and Matrix Spike Duplicate RPD and Recovery Summary**  
**Round 20**

Sample Identification	Location ID	Compound	Matrix Spike (% Rec)	Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD	Control Limits (%)
ACSGWPWB20 L2231	PWB	Phenol	76	92	10-100	19.05	50
		2-Chlorophenol	79	86	35-136	8.48	50
		N-Nitroso-di-n-propylamine	85	95	31-150	11.11	50
		4-Chloro-3-methylphenol	103	97	35-150	-6.00	500
		Acenaphthene	100	95	45-141	-5.13	40
		4-Nitrophenol	72	94	10-150	-26.51	50
		2,4-Dinitrotoluene	90	95	50-150	-5.41	34
		Pentachlorophenol	123	128	32-150	3.98	50
		Pyrene	85	85	37-150	0.00	35
		Phenol-d5 (surrogate)	85	87	10-110	2.33	NA
		bis-(2-Chloroethyl) ether-d8 (surr)	90	97	41-94	7.49	NA
		2-Chlorophenol-d4 (surrogate)	87	90	33-110	3.39	NA
		4-Methylphenol-d8 (surrogate)	85	92	38-95	7.91	NA
		Nitrobenzene-d5 (surrogate)	92	95	35-114	3.21	NA
		2-Nitrophenol-d4 (surrogate)	90	92	40-106	2.20	NA
		2,4-Dichlorophenol-d3 (surrogate)	92	87	42-98	-5.59	NA
		4-Chloroaniline-d4 (surrogate)	100*	90*	8-70	-10.53	NA
		Dimethylphthalate-d6 (surrogate)	92	95	62-102	3.21	NA
		Acenaphthylene-d8 (surrogate)	92	95	49-98	3.21	NA
		4-Nitrophenol-d4 (surrogate)	100	92	9-181	-8.33	NA
		Fluorene-d10 (surrogate)	90	92	50-97	2.20	NA
		4,6-Dinitro-2-methylphenol-d2 (surr)	79	79	53-153	0.00	NA
		Anthracene-d10 (surrogate)	97	92	55-116	-5.29	NA
		Pyrene-d10 (surrogate)	92	87	47-114	-5.59	NA
		Benzo (a) pyrene-d12 (surrogate)	87	87	54-120	0.00	NA
ACSGWPWY20 K2231	PWY20	gamma-BHC (Lindane)	50*	26*	56-123	-63.16	15
		Heptachlor	450*	-120*	40-131	-345.45	20
		Aldrin	55	32*	40-120	-52.87	22
		Dieldrin	55	31*	52-126	-55.81	18
		Endrin	65	37*	56-121	-54.90	21
		4,4'-DDT	60	31*	38-127	-63.74	27
		Tetrachloro-m-xylene (surrogate)	63	71	30-150	11.94	NA
		Decachlorobiphenyl (surrogate)	36	37	30-150	2.74	NA

**Table 4**  
**Matrix Spike and Matrix Spike Duplicate RPD and Recovery Summary**  
**Round 20**

Sample Identification	Location ID	Compound	Matrix Spike (% Rec)	Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD	Control Limits (%)
ACSGWPWY20 Re-analysis K2231	PWY20	gamma-BHC (Lindane)	55*	28*	56-123	-65.06	15
		Heptachlor	53	29*	40-131	-58.54	20
		Aldrin	55	31*	40-120	-55.81	22
		Dieldrin	65	31*	52-126	-70.83	18
		Endrin	65	34*	56-121	-62.63	21
		4,4'-DDT	65	33*	38-127	-65.31	27
		Tetrachloro-m-xylene (surrogate)	59	33	30-150	-56.52	NA
		Decachlorobiphenyl (surrogate)	67	35	30-150	-62.75	NA
ACSGWPWY20 K2231	PWY20	Aluminum	99.8	100.5	75-125	0.70	20
		Antimony	98.9	101.6	75-125	2.69	20
		Arsenic	98.4	96.5	75-125	-1.95	20
		Barium	98.9	101.4	75-125	2.50	20
		Beryllium	98.6	101.1	75-125	2.50	20
		Cadmium	94.5	97.3	75-125	2.92	20
		Chromium	98.9	101.7	75-125	2.79	20
		Cobalt	100.8	103.2	75-125	2.35	20
		Copper	104.2	102	75-125	-2.13	20
		Iron	100.9	107.6	75-125	6.43	20
		Lead	100.2	102.4	75-125	2.17	20
		Manganese	98.8	101.5	75-125	2.70	20
		Mercury	83	81.2	75-125	-2.19	20
		Nickel	96	98.7	75-125	2.77	20
		Selenium	89.5	103.4	75-125	14.41	20
		Silver	102.1	102.1	75-125	0.00	20
		Thallium	92.2	91.3	75-125	-0.98	20
		Vanadium	99.1	101.7	75-125	2.59	20
		Zinc	95.4	102.5	75-125	7.18	20
		Cyanide	114.3	112.1	75-125	-1.94	20

**Notes:**

% Rec - Percent Recovery

NA - Not Applicable

RPD - Relative Percent Difference

\* Indicates that the percent recovery lies outside of the acceptance criteria outlined in the QAPP.

Samples that have percent recoveries outside of the acceptance criteria are discussed in the Matrix Spike/Matrix Spike Duplicate Sections of this report.

**Table 5**  
**LCS and LCS Duplicate RPD and Recovery Summary**  
**Round 20**

Laboratory Identification	Sample Delivery Group	Compound	Laboratory Spike (% Rec)	Laboratory Spike Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD (%)	Control Limits (%)
VZPLCS	K2231	1,1-Dichloroethene	103	NA	60-140	NA	NA
		Benzene	104	NA	60-140	NA	NA
		Trichloroethene	111	NA	60-140	NA	NA
		Toluene	96	NA	60-140	NA	NA
		Chlorobenzene	97	NA	60-140	NA	NA
		Dibromofluoromethane (surrogate)	102	NA	80-120	NA	NA
		1,2-Dichloroethane-d4 (surrogate)	101	NA	80-120	NA	NA
		Toluene-d8 (surrogate)	91	NA	80-120	NA	NA
		Bromofluorobenzene(surrogate)	104	NA	80-120	NA	NA
PGPLCS	K2231	gamma-BHC (Lindane)	63	NA	50-120	NA	NA
		Heptachlor epoxide	78	NA	50-150	NA	NA
		Dieldrin	70	NA	30-130	NA	NA
		4,4'-DDE	75	NA	50-150	NA	NA
		Endrin	85	NA	50-120	NA	NA
		Endosulfan sulfate	55	NA	50-120	NA	NA
		gamma-Chlordane	76	NA	30-130	NA	NA
		Tetrachloro-m-xylene (surrogate)	80	NA	30-150	NA	NA
		Decachlorobiphenyl (surrogate)	86	NA	30-150	NA	NA

**Table 5**  
**LCS and LCS Duplicate RPD and Recovery Summary**  
**Round 20**

Laboratory Identification	Sample Delivery Group	Compound	Laboratory Spike (% Rec)	Laboratory Spike Duplicate (% Rec)	Control Limits Recovery (%)	Actual RPD (%)	Control Limits (%)
LCSW	K2231	Aluminum	99.8	NA	75-125	NA	NA
		Antimony	97.1	NA	75-125	NA	NA
		Arsenic	93.9	NA	75-125	NA	NA
		Barium	97.1	NA	75-125	NA	NA
		Beryllium	97.4	NA	75-125	NA	NA
		Cadmium	94.3	NA	75-125	NA	NA
		Calcium	99.8	NA	75-125	NA	NA
		Chromium	98.6	NA	75-125	NA	NA
		Cobalt	96.7	NA	75-125	NA	NA
		Copper	101.4	NA	75-125	NA	NA
		Iron	98.2	NA	75-125	NA	NA
		Lead	96	NA	75-125	NA	NA
		Magnesium	95.7	NA	75-125	NA	NA
		Manganese	98.4	NA	75-125	NA	NA
		Mercury	83.3	NA	75-125	NA	NA
		Nickel	96.3	NA	75-125	NA	NA
		Potassium	100.7	NA	75-125	NA	NA
		Selenium	91.8	NA	75-125	NA	NA
		Silver	101.7	NA	75-125	NA	NA
		Sodium	93.8	NA	75-125	NA	NA
		Thallium	97.9	NA	75-125	NA	NA
		Vanadium	98.4	NA	75-125	NA	NA
		Zinc	94.9	NA	75-125	NA	NA
		Cyanide	86.7	NA	75-125	NA	NA

**Notes:**

% Rec - Percent Recovery

NA - Not Applicable

RPD - Relative Percent Difference

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

<b>Method</b>	<b>Sample Identification</b>	<b>Location ID</b>	<b>Collection Date</b>	<b>Laboratory Sample Identification</b>	<b>Compound</b>	<b>Percent Recovery</b>
SW8260B K2231	ACSGWPWTB20	FIELDQC	9/17/2002	K2231-7	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	114 109 92 120
	ACSGWPWD20	PWD	9/17/2002	K2231-1	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	118 111 94 123*
	ACSGWPWDUP20	FIELDQC	9/17/2002	K2231-2	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	120 116 97 124*
	ACSGWPWY20	PWY	9/17/2002	K2231-3	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	115 112 88 130*
	ACSGWPWB20	PWB	9/17/2002	K2231-4	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	116 111 90 128*
	ACSGWPWT20	PWT	9/17/2002	K2231-5	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	117 114 91 126*
	ACSGWPWC20	PWC	9/17/2002	K2231-6	Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	123 119 92 134
SW8270 K2231	ACSGWPWD20	PWD	9/17/2002	K2231-1	Phenol-d5 bis-(2-Chloroethyl) ether-d8 2-Chlorophenol-d4 4-Methylphenol-d8 Nitrobenzene-d5 2-Nitrophenol-d4 2,4-Dichlorophenol-d3 4-Chloroaniline-d4 Dimethylphthalate-d6 Acenaphthylene-d8 4-Nitrophenol-d4 Fluorene-d10 4,6-Dinitro-2-methylphenol-d2 Anthracene-d10 Pyrene-d10 Benzo (a) pyrene-d12	81 84 78 84 76 78 76 73* 84 81 81 73 65 86 89 84

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

Method	Sample Identification	Location ID	Collection Date	Laboratory Sample Identification	Compound	Percent Recovery
SW8270 K2231	ACSGWPWDUP20	FIELDQC	9/17/2002	K2231-2	Phenol-d5	81
					bis-(2-Chloroethyl) ether-d8	84
					2-Chlorophenol-d4	81
ACSGWPWY20	PWY	PWY	9/17/2002	K2231-3	4-Methylphenol-d8	81
					Nitrobenzene-d5	81
					2-Nitrophenol-d4	78
					2,4-Dichlorophenol-d3	76
					4-Chloroaniline-d4	70
					Dimethylphthalate-d6	84
					Acenaphthylene-d8	81
					4-Nitrophenol-d4	81
					Fluorene-d10	73
					4,6-Dinitro-2-methylphenol-d2	62
					Anthracene-d10	86
					Pyrene-d10	89
					Benzo (a) pyrene-d12	81
					Phenol-d5	79
					bis-(2-Chloroethyl) ether-d8	79
					2-Chlorophenol-d4	76
					4-Methylphenol-d8	76
ACSGWPWB20	PWB	PWB	9/17/2002	K2231-4	Nitrobenzene-d5	76
					2-Nitrophenol-d4	71
					2,4-Dichlorophenol-d3	71
					4-Chloroaniline-d4	71*
					Dimethylphthalate-d6	79
					Acenaphthylene-d8	76
					4-Nitrophenol-d4	74
					Fluorene-d10	68
					4,6-Dinitro-2-methylphenol-d2	61
					Anthracene-d10	84
					Pyrene-d10	84
					Benzo (a) pyrene-d12	79
					Phenol-d5	88
					bis-(2-Chloroethyl) ether-d8	93
					2-Chlorophenol-d4	88
					4-Methylphenol-d8	90
					Nitrobenzene-d5	80
					2-Nitrophenol-d4	80
					2,4-Dichlorophenol-d3	80
					4-Chloroaniline-d4	78*
					Dimethylphthalate-d6	85
					Acenaphthylene-d8	85
					4-Nitrophenol-d4	83
					Fluorene-d10	78
					4,6-Dinitro-2-methylphenol-d2	65
					Anthracene-d10	90
					Pyrene-d10	95
					Benzo (a) pyrene-d12	88

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

Method	Sample Identification	Location ID	Collection Date	Laboratory Sample Identification	Compound	Percent Recovery
SW8270 K2231	ACSGWPWT20	PWT	9/17/2002	K2231-5	Phenol-d5	76
					bis-(2-Chloroethyl) ether-d8	76
					2-Chlorophenol-d4	73
					4-Methylphenol-d8	76
					Nitrobenzene-d5	73
					2-Nitrophenol-d4	73
					2,4-Dichlorophenol-d3	73
					4-Chloroaniline-d4	68
					Dimethylphthalate-d6	86
					Acenaphthylene-d8	81
					4-Nitrophenol-d4	73
					Fluorene-d10	76
					4,6-Dinitro-2-methylphenol-d2	59
					Anthracene-d10	84
					Pyrene-d10	86
					Benzo (a) pyrene-d12	84
	ACSGWPWC20	PWC	9/17/2002	K2231-6	Phenol-d5	55
					bis-(2-Chloroethyl) ether-d8	53
					2-Chlorophenol-d4	50
					4-Methylphenol-d8	55
					Nitrobenzene-d5	53
					2-Nitrophenol-d4	53
					2,4-Dichlorophenol-d3	50
					4-Chloroaniline-d4	55
					Dimethylphthalate-d6	65
					Acenaphthylene-d8	58
					4-Nitrophenol-d4	58
					Fluorene-d10	60
					4,6-Dinitro-2-methylphenol-d2	53
					Anthracene-d10	70
					Pyrene-d10	70
					Benzo (a) pyrene-d12	68
SW8270 L2231	ACSGWPWB20	PWB	10/25/2002	L2231-1	Phenol-d5	95
					bis-(2-Chloroethyl) ether-d8	95*
					2-Chlorophenol-d4	95
					4-Methylphenol-d8	95
					Nitrobenzene-d5	100
					2-Nitrophenol-d4	97
					2,4-Dichlorophenol-d3	95
					4-Chloroaniline-d4	95*
					Dimethylphthalate-d6	97
					Acenaphthylene-d8	100*
					4-Nitrophenol-d4	97
					Fluorene-d10	92
					4,6-Dinitro-2-methylphenol-d2	82
					Anthracene-d10	97
					Pyrene-d10	90
					Benzo (a) pyrene-d12	92

**Table 6**  
**Surrogate Percent Recovery Summary**  
**Round 20**

Method	Sample Identification	Location ID	Collection Date	Laboratory Sample Identification	Compound	Percent Recovery
SW8270 L2231	ACSGWDUP20	FIELDQC	10/25/2002	L2231-2	Phenol-d5 bis-(2-Chloroethyl) ether-d8 2-Chlorophenol-d4 4-Methylphenol-d8 Nitrobenzene-d5 2-Nitrophenol-d4 2,4-Dichlorophenol-d3 4-Chloroaniline-d4 Dimethylphthalate-d6 Acenaphthylene-d8 4-Nitrophenol-d4 Fluorene-d10 4,6-Dinitro-2-methylphenol-d2 Anthracene-d10 Pyrene-d10 Benzo (a) pyrene-d12	95 100* 97 92 103 95 95 100* 103 95 79 100 89 92
Pests/PCBs	ACSGWPWD20	PWD	9/17/2002	K2231-1	Tetrachloro-m-xylene Decachlorobiphenyl	77 83
	ACSGWPDUP20	FIELDQC	9/17/2002	K2231-2	Tetrachloro-m-xylene Decachlorobiphenyl	61 74
	ACSGWPWY20	PWY	9/17/2002	K2231-3	Tetrachloro-m-xylene Decachlorobiphenyl	48 60
	ACSGWPWB20	PWB	9/17/2002	K2231-4	Tetrachloro-m-xylene Decachlorobiphenyl	73 78
	ACSGWPWT20	PWT	9/17/2002	K2231-5	Tetrachloro-m-xylene Decachlorobiphenyl	72 74
	ACSGWPWC20	PWC	9/17/2002	K2231-6	Tetrachloro-m-xylene Decachlorobiphenyl	71 79

**Notes:**

\* Indicates that the percent recovery lies outside of the acceptance criteria outlined in the QAPP.

Samples that have more than one surrogate recovery outside of the acceptance criteria are discussed in the surrogate section of this report.

**Table 7**  
**Percent Completeness**  
**Round 20**

<b>Method</b>	<b>Matrix</b>	<b>Compound</b>	<b>Total Number of Samples</b>	<b>Number Rejected</b>	<b>Percent Complete (%)</b>
SW8260B	Water	1,1,1-Trichloroethane	7	0	100
		1,1,2,2-Tetrachloroethane	7	0	100
		1,1,2-Trichloroethane	7	0	100
		1,1-Dichloroethane	7	0	100
		1,1-Dichloroethene	7	0	100
		1,2-Dichloroethane	7	0	100
		1,2-Dichloropropane	7	0	100
		2-Butanone (MEK)	7	0	100
		2-Hexanone	7	0	100
		4-Methyl-2-pentanone (MIBK)	7	0	100
		Acetone	7	0	100
		Benzene	7	0	100
		Bromodichloromethane	7	0	100
		Bromoform	7	0	100
		Bromomethane	7	0	100
		Carbon Disulfide	7	0	100
		Carbon Tetrachloride	7	0	100
		Chlorobenzene	7	0	100
		Chloroethane	7	0	100
		Chloroform	7	0	100
		Chloromethane	7	0	100
		cis-1,2-Dichloroethene	7	0	100
		cis-1,3-Dichloropropene	7	0	100
		Dibromochloromethane	7	0	100
		Ethylbenzene	7	0	100
		Methylene chloride	7	0	100
		Styrene	7	0	100
		Tetrachloroethene	7	0	100
		Toluene	7	0	100
SW8270	Water	trans-1,2-Dichloroethene	7	0	100
		trans-1,3-Dichloropropene	7	0	100
		Trichloroethene	7	0	100
		Vinyl chloride	7	0	100
		Xylenes (total)	7	0	100
		1,2,4-Trichlorobenzene	7	0	100
		1,2-Dichlorobenzene	7	0	100
		1,3-Dichlorobenzene	7	0	100
		1,4-Dichlorobenzene	7	0	100
SW8270	Water	2,2'-oxybis(1-Chloropropane)	8	0	100
		2,4,5-Trichlorophenol	8	0	100
		2,4,6-Trichlorophenol	8	0	100
		2,4-Dichlorophenol	8	0	100
		2,4-Dimethylphenol	8	0	100
		2,4-Dinitrophenol	8	0	100
		2,4-Dinitrotoluene	8	0	100
		2,6-Dinitrotoluene	8	0	100

**Table 7**  
**Percent Completeness**  
**Round 20**

<b>Method</b>	<b>Matrix</b>	<b>Compound</b>	<b>Total Number of Samples</b>	<b>Number Rejected</b>	<b>Percent Complete (%)</b>
		2-Chloronaphthalene	8	0	100
		2-Chlorophenol	8	0	100
		2-methyl-4,6-Dinitrophenol	8	0	100
		2-Methylnaphthalene	8	0	100
		2-Methylphenol (o-cresol)	8	0	100
		2-Nitroaniline	8	0	100
		2-Nitrophenol	8	0	100
		3,3'-Dichlorobenzidine	8	0	100
		3/4-Methylphenol (m and p-cresol)	8	0	100
		3-Nitroaniline	8	0	100
		4-Bromophenylphenylether	8	0	100
		4-Chloro-3-methylphenol	8	0	100
		4-Chloroaniline	8	0	100
		4-Chlorophenylphenylether	8	0	100
		4-Nitroaniline	8	0	100
		4-Nitrophenol	8	0	100
		Acenaphthene	8	0	100
		Acenaphthylene	8	0	100
		Anthracene	8	0	100
		Benzo(a)anthracene	8	0	100
		Benzo(a)pyrene	8	0	100
		Benzo(b)fluoranthene	8	0	100
		Benzo(g,h,I)perylene	8	0	100
		Benzo(k)fluoranthene	8	0	100
		Bis(2-chloroethoxy)methane	8	0	100
		Bis(2-chloroethyl)ether	8	0	100
		Bis(2-ethylhexyl)phthalate	8	0	100
		Butylbenzylphthalate	8	0	100
		Carbazole	0	0	0
		Chrysene	8	0	100
		Dibeno(a,h)anthracene	8	0	100
		Dibenzofuran	8	0	100
		Diethylphthalate	8	0	100
		Dimethylphthalate	8	0	100
		Di-n-butylphthalate	8	0	100
		Di-n-octylphthalate	8	0	100
		Fluoranthene	8	0	100
		Fluorene	8	0	100
		Hexachlorobenzene	8	0	100
		Hexachlorobutadiene	8	0	100
		Hexachlorocyclopentadiene	8	0	100
		Hexachloroethane	8	0	100
		Indeno(1,2,3-c,d)pyrene	8	0	100
		Isophorone	8	0	100
		Naphthalene	8	0	100
		Nitrobenzene	8	0	100

**Table 7**  
**Percent Completeness**  
**Round 20**

<b>Method</b>	<b>Matrix</b>	<b>Compound</b>	<b>Total Number of Samples</b>	<b>Number Rejected</b>	<b>Percent Complete (%)</b>
		N-Nitrosodi-n-propylamine	8	0	100
		N-Nitrosodiphenylamine	8	0	100
		Pentachlorophenol	8	0	100
		Phenanthrene	8	0	100
		Phenol	8	0	100
		Pyrene	8	0	100
Pests/PCBs	Water	4,4'-DDD	6	0	100
		4,4'-DDE	6	0	100
		4,4'-DDT	6	0	100
		Aldrin	6	0	100
		alpha-BHC	6	0	100
		alpha-Chlordane	6	0	100
		beta-BHC	6	0	100
		delta-BHC	6	0	100
		Dieldrin	6	0	100
		Endosulfan I	6	0	100
		Endosulfan II	6	0	100
		Endosulfan Sulfate	6	0	100
		Endrin	6	0	100
		Endrin Aldehyde	6	0	100
		Endrin Ketone	6	0	100
		gamma-BHC (Lindane)	6	0	100
		gamma-Chlordane	6	0	100
		Heptachlor	6	0	100
		Heptachlor epoxide	6	0	100
		Methoxychlor	6	0	100
		Toxaphene	6	0	100
		Arochlor-1016	6	0	100
		Arochlor-1221	6	0	100
		Arochlor-1232	6	0	100
		Arochlor-1242	6	0	100
		Arochlor-1248	6	0	100
		Arochlor-1254	6	0	100
		Arochlor-1260	6	0	100
Metals		Aluminum	6	0	100
		Antimony	6	0	100
		Arsenic	6	0	100
		Barium	6	0	100
		Beryllium	6	0	100
		Cadmium	6	0	100
		Calcium	6	0	100
		Chromium (total)	6	0	100
		Cobalt	6	0	100
		Copper	6	0	100
		Iron (total)	6	0	100
		Lead	6	0	100

**Table 7**  
**Percent Completeness**  
**Round 20**

<b>Method</b>	<b>Matrix</b>	<b>Compound</b>	<b>Total Number of Samples</b>	<b>Number Rejected</b>	<b>Percent Complete (%)</b>
		Magnesium	6	0	100
		Manganese	6	0	100
		Mercury	6	0	100
		Nickel	6	0	100
		Potassium	6	0	100
		Selenium	6	0	100
		Silver	6	0	100
		Sodium	6	0	100
		Thallium	6	0	100
		Vanadium	6	0	100
		Zinc	6	0	100

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWB20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-4

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-4A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane	0.5	U	
74-87-3-----	Chloromethane	0.3	J	
75-01-4-----	Vinyl Chloride	0.5	U	
74-83-9-----	Bromomethane	0.5	U	
75-00-3-----	Chloroethane	0.5	U	
75-69-4-----	Trichlorofluoromethane	0.5	U	
75-35-4-----	1,1-Dichloroethene	0.5	U	
75-15-0-----	Carbon disulfide	0.5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	0.5	U	
67-64-1-----	Acetone	2	JB	
79-20-9-----	Methyl acetate	0.5	U	
75-09-2-----	Methylene Chloride	0.5	B	
156-60-5-----	trans-1,2-Dichloroethene	0.5	U	
1634-04-4-----	Methyl-tert-butyl ether	0.5	U	
75-34-3-----	1,1-Dichloroethane	0.5	U	
156-59-2-----	cis-1,2-Dichloroethene	0.5	U	
78-93-3-----	2-butanone	3	U	
67-66-3-----	Chloroform	0.5	U	
71-55-6-----	1,1,1-Trichloroethane	0.5	U	
56-23-5-----	Carbon Tetrachloride	0.5	U	
71-43-2-----	Benzene	0.5	U	
107-06-2-----	1,2-Dichloroethane	0.5	U	
79-01-6-----	Trichloroethene	0.5	U	
78-87-5-----	1,2-Dichloropropane	0.5	U	
75-27-4-----	Bromodichloromethane	0.5	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U	
108-10-1-----	4-Methyl-2-pentanone	3	U	
108-88-3-----	Toluene	0.1	JB	
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U	
79-00-5-----	1,1,2-Trichloroethane	0.5	U	
127-18-4-----	Tetrachloroethene	0.5	U	
591-78-6-----	2-hexanone	3	U	
124-48-1-----	Dibromochloromethane	0.5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWB20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-4

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-4A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m,p-Xylene	0.06	JB
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropyl Benzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.07	JB
110-82-7-----	Cyclohexane	0.5	U
108-87-2-----	Methylcyclohexane	0.5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWC20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-6

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-6A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.1	J
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	0.5	U
67-64-1-----	Acetone	2	JB
79-20-9-----	Methyl acetate	0.5	U
75-09-2-----	Methylene Chloride	0.5	B
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
1634-04-4-----	Methyl-tert-butyl ether	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-butanone	3	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	3	U
108-88-3-----	Toluene	0.2	JB
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.5	U
591-78-6-----	2-hexanone	3	U
124-48-1-----	Dibromochloromethane	0.5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWC20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-6

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-6A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.03	J
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m,p-Xylene	1	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropyl Benzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U
110-82-7-----	Cyclohexane	0.5	U
108-87-2-----	Methylcyclohexane	0.5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWD20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-1

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-1A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L Q	
75-71-8-----	Dichlorodifluoromethane _____	0.5	U
74-87-3-----	Chloromethane _____	0.3	J
75-01-4-----	Vinyl Chloride _____	0.5	U
74-83-9-----	Bromomethane _____	0.1	JB
75-00-3-----	Chloroethane _____	0.5	U
75-69-4-----	Trichlorodifluoromethane _____	0.5	U
75-35-4-----	1,1-Dichloroethene _____	0.5	U
75-15-0-----	Carbon disulfide _____	0.5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane _____	0.5	U
67-64-1-----	Acetone _____	2	JB
79-20-9-----	Methyl acetate _____	0.5	U
75-09-2-----	Methylene Chloride _____	0.5	B
156-60-5-----	trans-1,2-Dichloroethene _____	0.5	U
1634-04-4-----	Methyl-tert-butyl ether _____	0.5	U
75-34-3-----	1,1-Dichloroethane _____	0.5	U
156-59-2-----	cis-1,2-Dichloroethene _____	0.5	U
78-93-3-----	2-butanone _____	3	U
67-66-3-----	Chloroform _____	0.5	U
71-55-6-----	1,1,1-Trichloroethane _____	0.5	U
56-23-5-----	Carbon Tetrachloride _____	0.5	U
71-43-2-----	Benzene _____	0.5	U
107-06-2-----	1,2-Dichloroethane _____	0.5	U
79-01-6-----	Trichloroethene _____	0.5	U
78-87-5-----	1,2-Dichloropropane _____	0.5	U
75-27-4-----	Bromodichloromethane _____	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene _____	0.5	U
108-10-1-----	4-Methyl-2-pentanone _____	3	U
108-88-3-----	Toluene _____	0.1	JB
10061-02-6-----	trans-1,3-Dichloropropene _____	0.5	U
79-00-5-----	1,1,2-Trichloroethane _____	0.5	U
127-18-4-----	Tetrachloroethene _____	0.5	U
591-78-6-----	2-hexanone _____	3	U
124-48-1-----	Dibromochloromethane _____	0.5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWD20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-1

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-1A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
106-93-4-----	1,2-Dibromoethane	0.5	U	
108-90-7-----	Chlorobenzene	0.5	U	
100-41-4-----	Ethylbenzene	0.5	U	
108-38-3-----	m,p-Xylene	0.09	JB	
95-47-6-----	o-Xylene	0.5	U	
100-42-5-----	Styrene	0.5	U	
75-25-2-----	Bromoform	0.5	U	
98-82-8-----	Isopropyl Benzene	0.5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U	
541-73-1-----	1,3-Dichlorobenzene	0.5	U	
106-46-7-----	1,4-Dichlorobenzene	0.5	U	
95-50-1-----	1,2-Dichlorobenzene	0.5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U	
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U	
1330-20-7-----	Xylene (total)	0.09	JB	
110-82-7-----	Cyclohexane	0.5	U	
108-87-2-----	Methylcyclohexane	0.5	U	

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWT20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-5

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-5A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.1	JB
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	0.5	U
67-64-1-----	Acetone	3	B
79-20-9-----	Methyl acetate	0.5	U
75-09-2-----	Methylene Chloride	0.5	JB
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
1634-04-4-----	Methyl-tert-butyl ether	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-butanone	3	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	3	U
108-88-3-----	Toluene	0.2	JB
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.5	U
591-78-6-----	2-hexanone	3	U
124-48-1-----	Dibromochloromethane	0.5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWT20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-5

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-5A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-93-4-----	1, 2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m, p-Xylene	1	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropyl Benzene	0.5	U
79-34-5-----	1, 1, 2, 2-Tetrachloroethane	0.5	U
541-73-1-----	1, 3-Dichlorobenzene	0.5	U
106-46-7-----	1, 4-Dichlorobenzene	0.5	U
95-50-1-----	1, 2-Dichlorobenzene	0.5	U
96-12-8-----	1, 2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1, 2, 4-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U
110-82-7-----	Cyclohexane	0.5	U
108-87-2-----	Methylcyclohexane	0.5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWY20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-3

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-3A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.4	J
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
76-13-1-----	1,1,2-trichloro-1,2,2-trifluoroethane	0.5	U
67-64-1-----	Acetone	2	JB
79-20-9-----	Methyl acetate	0.5	U
75-09-2-----	Methylene Chloride	0.6	B
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
1634-04-4-----	Methyl-tert-butyl ether	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-butanone	3	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	3	U
108-88-3-----	Toluene	0.1	JB
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.5	U
591-78-6-----	2-hexanone	3	U
124-48-1-----	Dibromochloromethane	0.5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWY20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-3

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-3A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m,p-Xylene	0.08	JB
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropyl Benzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.09	JB
110-82-7-----	Cyclohexane	0.5	U
108-87-2-----	Methylcyclohexane	0.5	U

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET

EPA SAMPLE NO.

ACSGWPWB20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-4

Date Received: 09/19/2002

Lab File ID: K2231-4A70

Date Extracted: 09/21/2002

Sample Volume: 1000 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

FORM I LCSV-1

OLC03.2

1LCD  
LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
DATA SHEET  
EPA SAMPLE NO.

ACSGWPWB20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-4

Date Received: 09/19/2002

Lab File ID: K2231-4A70

Date Extracted: 09/21/2002

Sample Volume: 1000 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	23	
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM I LCSV-2

OLC03.2

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

GWPWB20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: L2231

Lab Sample ID: L2231-1

Date Received: 10/26/2002

Lab File ID: L2231-1A66

Date Extracted: 10/28/2002

Sample Volume: 1020 (ML)

Date Analyzed: 10/31/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

FORM I LCSV-1

OLC03.2

1LCD  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

GWPWB20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: L2231

Lab Sample ID: L2231-1

Date Received: 10/26/2002

Lab File ID: L2231-1A66

Date Extracted: 10/28/2002

Sample Volume: 1020 (ML)

Date Analyzed: 10/31/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWC20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-6

Date Received: 09/19/2002

Lab File ID: K2231-6B70

Date Extracted: 09/21/2002

Sample Volume: 1000 (ML)

Date Analyzed: 09/28/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

FORM I LCSV-1

OLC03.2

1LCD  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET

EPA SAMPLE NO.

ACSGWPWC20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-6

Date Received: 09/19/2002

Lab File ID: K2231-6B70

Date Extracted: 09/21/2002

Sample Volume: 1000 (ML)

Date Analyzed: 09/28/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM I LCSV-2

OLC03.2

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWD20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-1

Date Received: 09/19/2002

Lab File ID: K2231-1A70

Date Extracted: 09/21/2002

Sample Volume: 1075 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

1LCD  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET

EPA SAMPLE NO.

ACSGWPWD20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-1

Date Received: 09/19/2002

Lab File ID: K2231-1A70

Date Extracted: 09/21/2002

Sample Volume: 1075 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWT20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-5

Date Received: 09/19/2002

Lab File ID: K2231-5B70

Date Extracted: 09/21/2002

Sample Volume: 1075 (ML)

Date Analyzed: 09/28/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

1LCD  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET

EPA SAMPLE NO.

ACSGWPWT20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-5

Date Received: 09/19/2002

Lab File ID: K2231-5B70

Date Extracted: 09/21/2002

Sample Volume: 1075 (ML)

Date Analyzed: 09/28/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWY20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-3

Date Received: 09/19/2002

Lab File ID: K2231-3A70

Date Extracted: 09/21/2002

Sample Volume: 1050 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

1LCD  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWY20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-3

Date Received: 09/19/2002

Lab File ID: K2231-3A70

Date Extracted: 09/21/2002

Sample Volume: 1050 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM I LCSV-2

OLC03.2

1LCE  
 LOW CONCENTRATION WATER PESTICIDE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWB20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-4

Date Received: 09/19/2002

Sample Volume: 1050 (ML)

Date Extracted: 09/20/2002

Concentrated Extract Volume: 2000 (UL)

Date Analyzed: 09/21/2002

Injection Volume: 1.0 (UL)

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Extraction: (Sepf/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
319-84-6	alpha-BHC	0.0095	U
319-85-7	beta-BHC	0.0095	U
319-86-8	delta-BHC	0.0095	U
58-89-9	gamma-BHC (Lindane)	0.0095	U
76-44-8	Heptachlor	0.0095	U
309-00-2	Aldrin	0.0095	U
1024-57-3	Heptachlor epoxide	0.0095	U
959-98-8	Endosulfan I	0.0095	U
60-57-1	Dieldrin	0.019	U
72-55-9	4,4'-DDE	0.019	U
72-20-8	Endrin	0.019	U
33213-65-9	Endosulfan II	0.019	U
72-54-8	4,4'-DDD	0.019	U
1031-07-8	Endosulfan sulfate	0.019	U
50-29-3	4,4'-DDT	0.019	U
72-43-5	Methoxychlor	0.095	U
53494-70-5	Endrin ketone	0.019	U
7421-93-4	Endrin aldehyde	0.019	U
5103-71-9	alpha-Chlordane	0.0095	U
5103-74-2	gamma-Chlordane	0.0095	U
8001-35-2	Toxaphene	0.95	U
12674-11-2	Aroclor-1016	0.19	U
11104-28-2	Aroclor-1221	0.38	U
11141-16-5	Aroclor-1232	0.19	U
53469-21-9	Aroclor-1242	0.19	U
12672-29-6	Aroclor-1248	0.19	U
11097-69-1	Aroclor-1254	0.19	U
11096-82-5	Aroclor-1260	0.19	U

1LCE  
 LOW CONCENTRATION WATER PESTICIDE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWC20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-6

Date Received: 09/19/2002

Sample Volume: 1000 (ML)

Date Extracted: 09/20/2002

Concentrated Extract Volume: 2000 (UL)

Date Analyzed: 09/21/2002

Injection Volume: 1.0 (UL)

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Extraction: (Sepf/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCE  
 LOW CONCENTRATION WATER PESTICIDE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWD20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-1

Date Received: 09/19/2002

Sample Volume: 975 (ML)

Date Extracted: 09/20/2002

Concentrated Extract Volume: 2000 (UL)

Date Analyzed: 09/21/2002

Injection Volume: 1.0 (UL)

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Extraction: (Sepf/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.021	U
72-55-9	4,4'-DDE	0.021	U
72-20-8	Endrin	0.021	U
33213-65-9	Endosulfan II	0.021	U
72-54-8	4,4'-DDD	0.021	U
1031-07-8	Endosulfan sulfate	0.021	U
50-29-3	4,4'-DDT	0.021	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.021	U
7421-93-4	Endrin aldehyde	0.021	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.21	U
11104-28-2	Aroclor-1221	0.41	U
11141-16-5	Aroclor-1232	0.21	U
53469-21-9	Aroclor-1242	0.21	U
12672-29-6	Aroclor-1248	0.21	U
11097-69-1	Aroclor-1254	0.21	U
11096-82-5	Aroclor-1260	0.21	U

**1LCE**  
**LOW CONCENTRATION WATER PESTICIDE ORGANICS ANALYSIS**  
**DATA SHEET**                                   **EPA SAMPLE NO.**

ACSGWPWT20

Lab Name: COMPUCHEM

Contract : OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No. : K2231

Lab Sample ID: K2231-5

Date Received: 09/19/2002

Sample Volume: 1050 (ML)

Date Extracted: 09/20/2002

Concentrated Extract Volume: 2000 (UL)

Date Analyzed: 09/21/2002

Injection Volume: 1.0 (UL)

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Extraction: (Sepf/Cont) SEPF

Sulfur Cleanup: (Y/N) N

Sulfur Cleanup: (Y/N) N Extraction: (Sepf/Cont.) SEPFE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
319-84-6	alpha-BHC	0.0095	U
319-85-7	beta-BHC	0.0095	U
319-86-8	delta-BHC	0.0095	U
58-89-9	gamma-BHC (Lindane)	0.0095	U
76-44-8	Heptachlor	0.0095	U
309-00-2	Aldrin	0.0095	U
1024-57-3	Heptachlor epoxide	0.0095	U
959-98-8	Endosulfan I	0.0095	U
60-57-1	Dieldrin	0.019	U
72-55-9	4,4'-DDE	0.019	U
72-20-8	Endrin	0.019	U
33213-65-9	Endosulfan II	0.019	U
72-54-8	4,4'-DDD	0.019	U
1031-07-8	Endosulfan sulfate	0.019	U
50-29-3	4,4'-DDT	0.019	U
72-43-5	Methoxychlor	0.095	U
53494-70-5	Endrin ketone	0.019	U
7421-93-4	Endrin aldehyde	0.019	U
5103-71-9	alpha-Chlordane	0.0095	U
5103-74-2	gamma-Chlordane	0.0095	U
8001-35-2	Toxaphene	0.95	U
12674-11-2	Aroclor-1016	0.19	U
11104-28-2	Aroclor-1221	0.38	U
11141-16-5	Aroclor-1232	0.19	U
53469-21-9	Aroclor-1242	0.19	U
12672-29-6	Aroclor-1248	0.19	U
11097-69-1	Aroclor-1254	0.19	U
11096-82-5	Aroclor-1260	0.19	U

1LCE  
LOW CONCENTRATION WATER PESTICIDE ORGANICS ANALYSIS  
DATA SHEET

EPA SAMPLE NO.

ACSGWPWY20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-3

Date Received: 09/19/2002

Sample Volume: 1000 (ML)

Date Extracted: 09/20/2002

Concentrated Extract Volume: 2000 (UL)

Date Analyzed: 09/21/2002

Injection Volume: 1.0 (UL)

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Extraction: (Sepf/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

## SW846 METALS

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## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACSGWPWB20

Lab Name: COMPUCHEM Contract: \_\_\_\_\_

Lab Code: LIBRTY Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: K2231

Matrix (soil/water): WATER Lab Sample ID: K2231-4

Level (low/med): LOW Date Received: 9/19/02

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.6	U		P
7440-36-0	Antimony	3.4	B		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	131			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	87300			P
7440-47-3	Chromium	0.65	B		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	0.80	U		P
7439-89-6	Iron	2820			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	41200			P
7439-96-5	Manganese	57.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	2270			P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	15900	E		P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	12.4	B		P
57-12-5	Cyanide	1.5	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: \_\_\_\_\_Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments:

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## SW846 METALS

-1-

## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACSGWPWC20

Lab Name: COMPUCHEM

Contract: \_\_\_\_\_

Lab Code: LIBRTY

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: K2231Matrix (soil/water): WATERLab Sample ID: K2231-6Level (low/med): LOWDate Received: 9/19/02% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.6	U		P
7440-36-0	Antimony	3.4	B		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	157			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	84700			P
7440-47-3	Chromium	0.49	B		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	0.80	U		P
7439-89-6	Iron	2350			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	48100			P
7439-96-5	Manganese	33.3			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	2840			P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	17300	E		P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	5.5	B		P
57-12-5	Cyanide	1.5	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: \_\_\_\_\_Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

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## SW846 METALS

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## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACSGWPWD20

Lab Name: COMPUCHEM

Contract: \_\_\_\_\_

Lab Code: LIBRTY

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: K2231Matrix (soil/water): WATERLab Sample ID: K2231-1Level (low/med): LOWDate Received: 9/19/02% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.6	U		P
7440-36-0	Antimony	3.0	B		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	152			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	89800			P
7440-47-3	Chromium	1.2	B		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	2250			P
7439-92-1	Lead	1.8	B		P
7439-95-4	Magnesium	47400			P
7439-96-5	Manganese	30.4			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	2960			P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	17100	E		P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	14.7	B		P
57-12-5	Cyanide	1.5	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: \_\_\_\_\_Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

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## SW846 METALS

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## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACSGWPWT20

Lab Name: COMPUCHEM

Contract: \_\_\_\_\_

Lab Code: LIBRTY

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: K2231Matrix (soil/water): WATERLab Sample ID: K2231-5Level (low/med): LOWDate Received: 9/19/02% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.6	U		P
7440-36-0	Antimony	3.1	B		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	152			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	90000			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	4.4	B		P
7439-89-6	Iron	2360			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	49100			P
7439-96-5	Manganese	32.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	3110			P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	19600	E		P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	33.4			P
57-12-5	Cyanide	1.5	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: \_\_\_\_\_Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

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## SW846 METALS

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## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACSGWPWY20

Lab Name: COMPUCHEM

Contract: \_\_\_\_\_

Lab Code: LIBRTY

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: K2231Matrix (soil/water): WATERLab Sample ID: K2231-3Level (low/med): LOWDate Received: 9/19/02% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8.1	B		P
7440-36-0	Antimony	1.7	U		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	152			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	85600			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	1.1	B		P
7439-89-6	Iron	3480			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	46400			P
7439-96-5	Manganese	35.4			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	3290			P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	23100	E		P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	13.4	B		P
57-12-5	Cyanide	1.5	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: \_\_\_\_\_Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

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FORM I  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWDUP20

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-2

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-2A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-71-8-----	Dichlorodifluoromethane	0.5	U	
74-87-3-----	Chloromethane	0.5	J	
75-01-4-----	Vinyl Chloride	0.5	U	
74-83-9-----	Bromomethane	0.1	JB	
75-00-3-----	Chloroethane	0.5	U	
75-69-4-----	Trichlorofluoromethane	0.5	U	
75-35-4-----	1,1-Dichloroethene	0.5	U	
75-15-0-----	Carbon disulfide	0.5	U	
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	0.5	U	
67-64-1-----	Acetone	2	JB	
79-20-9-----	Methyl acetate	0.5	U	
75-09-2-----	Methylene Chloride	0.4	JB	
156-60-5-----	trans-1,2-Dichloroethene	0.5	U	
1634-04-4-----	Methyl-tert-butyl ether	0.5	U	
75-34-3-----	1,1-Dichloroethane	0.5	U	
156-59-2-----	cis-1,2-Dichloroethene	0.5	U	
78-93-3-----	2-butanone	3	U	
67-66-3-----	Chloroform	0.5	U	
71-55-6-----	1,1,1-Trichloroethane	0.5	U	
56-23-5-----	Carbon Tetrachloride	0.5	U	
71-43-2-----	Benzene	0.5	U	
107-06-2-----	1,2-Dichloroethane	0.5	U	
79-01-6-----	Trichloroethene	0.5	U	
78-87-5-----	1,2-Dichloropropane	0.5	U	
75-27-4-----	Bromodichloromethane	0.5	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U	
108-10-1-----	4-Methyl-2-pentanone	3	U	
108-88-3-----	Toluene	0.08	JB	
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U	
79-00-5-----	1,1,2-Trichloroethane	0.5	U	
127-18-4-----	Tetrachloroethene	0.5	U	
591-78-6-----	2-hexanone	3	U	
124-48-1-----	Dibromochloromethane	0.5	U	

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWDUP20

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-2

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-2A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

106-93-4-----	1,2-Dibromoethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m,p-Xylene	1	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U
75-25-2-----	Bromoform	0.5	U
98-82-8-----	Isopropyl Benzene	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
1330-20-7-----	Xylene (total)	0.5	U
110-82-7-----	Cyclohexane	0.5	U
108-87-2-----	Methylcyclohexane	0.5	U

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWTB20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-7

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-7A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec.

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-71-8-----	Dichlorodifluoromethane	0.5	U
74-87-3-----	Chloromethane	0.2	J
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	0.5	U
75-69-4-----	Trichlorofluoromethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
76-13-1-----	1,1,2-trichloro-1,2,2-triflu	0.5	U
67-64-1-----	Acetone	2	JB
79-20-9-----	Methyl acetate	0.5	U
75-09-2-----	Methylene Chloride	0.6	B
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
1634-04-4-----	Methyl-tert-butyl ether	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-butanone	3	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	3	U
108-88-3-----	Toluene	0.2	JB
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.5	U
591-78-6-----	2-hexanone	3	U
124-48-1-----	Dibromochloromethane	0.5	U

FORM I VOA

FORM 1  
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

ACSGWPWTB20

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: K2231

Matrix: (soil/water) WATER

Lab Sample ID: K2231-7

Sample wt/vol: 25 (g/ml) ML

Lab File ID: K2231-7A62

Level: (low/med) LOW

Date Received: 09/19/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/30/02

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
106-93-4-----	1,2-Dibromoethane	0.5	U	
108-90-7-----	Chlorobenzene	0.5	U	
100-41-4-----	Ethylbenzene	0.5	U	
108-38-3-----	m,p-Xylene	0.07	JB	
95-47-6-----	o-Xylene	0.5	U	
100-42-5-----	Styrene	0.5	U	
75-25-2-----	Bromoform	0.5	U	
98-82-8-----	Isopropyl Benzene	0.5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U	
541-73-1-----	1,3-Dichlorobenzene	0.5	U	
106-46-7-----	1,4-Dichlorobenzene	0.5	U	
95-50-1-----	1,2-Dichlorobenzene	0.5	U	
96-12-8-----	1,2-Dibromo-3-Chloropropane	0.5	U	
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U	
1330-20-7-----	Xylene (total)	0.08	JB	
110-82-7-----	Cyclohexane	0.5	U	
108-87-2-----	Methylcyclohexane	0.5	U	

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

ACSGWPWDUP20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-2

Date Received: 09/19/2002

Lab File ID: K2231-2A70

Date Extracted: 09/21/2002

Sample Volume: 1075 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

1LCD  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET

EPA SAMPLE NO.

ACSGWPWDUP20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-2

Date Received: 09/19/2002

Lab File ID: K2231-2A70

Date Extracted: 09/21/2002

Sample Volume: 1075 (ML)

Date Analyzed: 09/27/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5.0	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM I LCSV-2

OLC03.2

1LCC  
 LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
 DATA SHEET  
 EPA SAMPLE NO.

GWPWDUP-20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: L2231

Lab Sample ID: L2231-2

Date Received: 10/26/2002

Lab File ID: L2231-2A66

Date Extracted: 10/28/2002

Sample Volume: 1040 (ML)

Date Analyzed: 10/31/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	bis(2-Chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	bis(2-Chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	20	U
92-52-4	1,1'-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5.0	U

FORM I LCSV-1

OLC03.2

1LCD  
LOW CONCENTRATION WATER SEMIVOLATILE ORGANICS ANALYSIS  
DATA SHEET

EPA SAMPLE NO.

GWPWDUP-20

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: L2231

Lab Sample ID: L2231-2

Date Received: 10/26/2002

Lab File ID: L2231-2A66

Date Extracted: 10/28/2002

Sample Volume: 1040 (ML)

Date Analyzed: 10/31/2002

Concentrated Extract Volume: 1000 (UL)

Dilution Factor: 1.0

Injection Volume: 1.0 (UL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	5.0	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	20	U
95-94-3	1,2,4,5 Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U

(1) - Cannot be separated from Diphenylamine

FORM I LCSV-2

OLC03.2

Lab Name: COMPUCHEM

Contract: OLC03-REVS

Lab Code: LIBRTY Case No.:

Client No.:

SDG No.: K2231

Lab Sample ID: K2231-2

Date Received: 09/19/2002

Sample Volume: 1025 (ML)

Date Extracted: 09/20/2002

Concentrated Extract Volume: 2000 (UL)

Date Analyzed: 09/21/2002

Injection Volume: 1.0 (UL)

Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) N

Extraction: (Sepf/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION UNITS: (UG/L)	Q
319-84-6	alpha-BHC	0.0098	U
319-85-7	beta-BHC	0.0098	U
319-86-8	delta-BHC	0.0098	U
58-89-9	gamma-BHC (Lindane)	0.0098	U
76-44-8	Heptachlor	0.0098	U
309-00-2	Aldrin	0.0098	U
1024-57-3	Heptachlor epoxide	0.0098	U
959-98-8	Endosulfan I	0.0098	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.098	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.0098	U
5103-74-2	gamma-Chlordane	0.0098	U
8001-35-2	Toxaphene	0.98	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.39	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

## SW846 METALS

-1-

## INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ACSGWPWDUP20

Lab Name: COMPUCHEM

Contract: \_\_\_\_\_

Lab Code: LIBRTY

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: K2231Matrix (soil/water): WATERLab Sample ID: K2231-2Level (low/med): LOWDate Received: 9/19/02% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7.6	U		P
7440-36-0	Antimony	3.8	B		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	143			P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	88300			P
7440-47-3	Chromium	0.40	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	2220			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	46600			P
7439-96-5	Manganese	29.9			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	2820			P
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	17100	E		P
7440-28-0	Thallium	4.2	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	12.7	B		P
57-12-5	Cyanide	4.3	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: \_\_\_\_\_Color After: COLORLESS Clarity After: CLEAR Artifacts: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

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